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Third meeting of the Intergovernmental Regional Committee on Human Settlements and
First meeting of the Joint Intergovernmental Regional Committee on Human Settlements and Environment

Addis Ababa, 28 June to 2 July 1982

LC/NAIROBI

HUMAN SETTLEMENTS FINANCING MECHANISMS

(in relation with the setting up of housing financing institutions)

M82-628

INTRODUCTION

1. Inadequate provision of finance appears to set a limit beyond which little could be achieved in human settlements development. This seems true inasmuch as virtually all known solutions to human settlements problems could be implemented once the right type and amount of money is available. However financial resources are scarce in Africa disproportionately distributed over the region and compete for several sectoral demands. The result is that housing although a basic requirement, is never adequately catered for financially.

2. Within the housing sector itself finance is required for the development of building materials, purchase of land, construction machinery and equipment as well as training of skills. The demand for money to purchase a housing unit as such, represents only an end demand. It appears therefore that financial resources for housing in Africa are over strained; on the other hand the failure to project financial requirements from a comprehensive approach has been a basic cause of failure of several housing financing programmes.

3. Apart from a few rich countries the provision of finance for housing in Africa has mainly been that of individual efforts. Perhaps it should be mentioned from the start that no individual African government can afford to house adequately, its population from public revenue. Institutional housing finance should, therefore, be regarded as a necessary supplement to individual efforts. In this regard, housing financing institutions are needed as legally recognized establishments through which parts of long term savings and any other accumulated funds could be channelled for investment into housing. However, the establishment of such financing institutions should not put additional strains on sources of finance that are already over burdened.

4. Post independence Africa has witnessed the establishment of several housing financing institutions particularly at the national level. Some of these institutions have made little impact on the national housing situation while others are dormant due to inadequate operating funds. To the extent that institutional financing could play an increasing role in housing development it becomes necessary for African governments to re-examine the present practice as a guide for future action.

Scope and coverage

5. The paper is divided into three parts (excluding the introduction). Part one examines briefly the present practice of institutional housing finance and the related problems. Part two discusses possible sources of fund and their effective re-allocation among competing uses within the housing sector itself while Part three generally recommends areas for action.

6. The paper does not however, cover two important areas of housing finance nakely: rural housing and international sources of housing finance. In addition details of housing finance administration are avoided while potential sources of funds which currently constitute regular sources of public revenue are excluded.

7. Finally, the paper does not examine the contribution that could be made from indirect sources such as reduced house building costs through research, building material substitution and increased productivity. It is assumed that such gains cannot be physically channelled into housing financing institution.

3. The paper therefore concentrates only on sources of funds such as pensions and social security savings which are usually not committed statutorily to any specific end uses as well as the vital contribution that could be made by individual contributions from the organized sector.

SUMMARY

9. All African governments realize the need to establish financing institutions for housing development, however, their attention has often been diverted to the immediate needs from other sectors. This factor is further emphasized by the fact that certain vital areas of the housing sector such as building materials industries finance and essential services often constitute parts of other ministries. Such administrative structures do not often function in the best interest of the housing sector.

10. However, what is deemed most lacking is the presence of any statutory legislation on the use of parts of long term savings for housing development. The paper is of the opinion that parts of social security, pensions and similar other funds could be suitably invested into the housing sector without adversely affecting other public programmes.

11. Further, in order not to disrupt public programmes from other sectors, the paper strongly suggests that finance for housing should be sought from those sources that are presently not over-utilized or else are not meant for any specific and immediate uses.

12. It is also recommended that all African governments should provide the necessary statutory legislation for parts of the above funds to be utilized for the establishment of housing financing institutions. Each country should however, examine which of the suggested sources would be most suitable for its conditions.

13. The paper strongly recommends the introduction of "housing cess" by every government since the proceeds from this source could be specifically reserved for the housing sector.

14. The paper also argues that in some African countries housing financing institutions do not follow any systematic development programmes nor do they effectively analyze all the priority areas that require funding in order to promote a smooth housing programme. The paper suggests that the development of systematic programmes and analysis of priority areas of funding should constitute functions of such financing institutions.

15. In line with the above, each government should also legally control the proportionate allocation of funds so as to eliminate obvious development bottlenecks in housing. Thus, building materials industries development/rehabilitation, contractor prefinancing and the establishment of plant pools should constitute inevitable areas of institutional housing financing.

PART ONE

Present practice of institutional housing financing

16. Most housing banks in Africa were established with public funds (although commercial banks and insurance companies often hold shares). Regardless of the sources of funds, the primary fact is that a fixed financial capital is often provided to be traded by the established company.

17. For a financial institution, financial solvency and profitability constitute primary objectives. This underlines the practice of lending to the section of the population that could afford to build its own house to the neglect of those who are really in need of financial assistance. The same issue explains the practice of spatial discrimination as regards the location of the estate to be financed with institutional loans. Cities and urban settlements increase the value of landed property and hence the reluctance to assist deserving customers in rural locations.

18. It has often been argued also that the supply of capital funds for long-term use at comparatively low yield is a principal limiting factor which badly affects the production of adequate housing and related facilities in African countries. The above situation has however changed in some of the countries where interest on housing loans are at par with those on commercial undertakings. In some countries, these are as high as 13 per cent per annum. 1/ Interest rates in most African countries are fixed by the government and are manipulated as an inflation control measure to regulate the volume of money in circulation. If high interest rates in practice discourage borrowing, then such a monetary tool should be regarded as a negative policy which could curtail financial supply to a sector which already does not attract adequate funding.

19. A final common characteristic of housing loan administration in Africa is the practice of the financing institution calling for a surety, usually a fixed asset as security against loans. The result is that those who already own houses have the advantage of obtaining loans to build more houses. The majority of the African population therefore, has no easy access to institutional housing loans. And yet in the presence of these stringent measures, no housing financing institution in Africa has ever been able to meet the requirements of all prospective customers, on the contrary, most of these banks have had little or no impact on the housing situation while others are operationally inactive. The courses of failure are inborn in the nature of establishment and mode of administration.

Causes of inactivity and failure

20. A primary factor which requires attention in the establishment of housing financing institutions is the use of fixed capital. Housing constitutes a fairly long term investment. Monies loaned out to finance housing, therefore, have repayment periods ranging between five to twenty years. This is the very opposite of commercial banking where most loans are repaid within nine months' time.

1/ A system of multiple interest rates is practiced in some African countries. Niger, for example, administers three types of rates depending upon the type of house to be built and the volume of loan required.

21. For example, $5000 loaned out for a housing project could be repaid (on equal installment terms) within eight years period with one year moratorium on principal repayment only. This implies that (assuming a 7 per cent interest per annum) only $350, constituting the interest, could be recovered at the end of the first year, it also implies that while the total repayment would be completed after nine years (assuming no leakage) 2/ the next applicant would obtain his loan eight years after the initial lending has been made. At the end of the ninth year, total repayment comes to only $7,185 with two beneficiaries.

22. The same amount of money given to commercial banking could be reloaned eleven times yielding a total payment of $10,518 (assuming no leakage and accepting the repayment period stated in paragraph 20). It is conclusive, therefore, that unless the initial capital provided to housing financing institutions is substantial and supplied on a regular basis financing would become dormant shortly after the establishment of the bank. There is therefore, the need to determine the volume of capital that could operate an active housing financing institution.

23. Quite often, mortgage loan scheduling does not make room for leakages that could occur during the period of repayment. The example cited earlier assumes that after the one year moratorium, construction would be completed and loan repayment would be regular over the next eight years. But this does not pertain in practice.

24. In Africa, leakages result mainly due to frequent shortages of building materials, construction problems, as well as price escalations which may necessitate the provision of supplementary loans. These do not take into account dishonest practice on the part of the client or the builder through diverting part of the money for other uses. The result is that most often, there are leakages and repayment is never on schedule. There are examples of housing projects which have remained uncompleted for more than five years thus locking up all the loan capital.

25. Such leakages not only embarass customers, but also impair the lending ability of the institution. Quite often, housing financing institutions run out of loanable funds as a result of such leakages. The next question then is how could the occurrence of such leakages be minimized so as to keep housing financing institutions financially active.

26. A third problem which requires attention in the establishment and administration of housing financing institutions in Africa pertains to a number of interrelated problems, for example: who caters for the low income group which has no securities? As mentioned earlier, financial solvency and profitability are inevitable requirements of housing banks. Such institution would, therefore, naturally provide loans to customers whose rent capacities are not unduly low.

27. It would be noted however, that on the average, 72 per cent of the working population in most African countries share below 50 per cent of the national income. Statistical information about per capita income is very scarce in most African

2/ Leakage in this context implies that there are repayment defaults and that all of the loaned sums do not find their way back into the banking system.

countries, however, the estimated average per capita income for the region is about US$175.8 3/ (excluding the oil producing countries). There is therefore, the need for a financing mechanism that could benefit the low income group which are genuinely deserving.

28. The next problem is how institutional financing could be extended to the rural population and yet minimize the lending risk of the institutions. Although Africa is experiencing a rapid rate of urban growth, about 80 per cent of the region's population still lives in rural areas. It is estimated that between 1960 1970 alone some 40 million dwellings were required to meet expected population increases in rural Africa. In addition, although urban incomes are low, they are almost six times higher than rural incomes. 4/

29. Such disparities between rural and urban incomes compel financial institutions to place restrictions on mortgage loans in rural areas. However a strict adherence to such a rule (although logical) would mean denying financial assistance to the majority of the population. 5/

30. It would be inferred from the above that although the idea of establishing housing financing institutions in Africa is laudable, most attempts have met with little success. Apart from numerous administrative problems, the chances of leakage remain very ripe and could spell the failure of several of such institutions. There is also the problem of the financial facility not benefitting the really deserving sections of the population, and above all the number of beneficiaries is small (perhaps due to the volume of money spent on individual projects) with the result that the banks do not appear to have any appreciable impact on the housing scene in most African countries. These experiences are valuable and should provide lessons for the establishment of human settlements financing mechanisms in the region.

PART TWO

Lessons for the future

31. The fact that certain African countries do not still have any special banks to finance housing indicates that the practice of institutional housing financing is comparatively recent in the region. Any breakthrough in the future should, therefore, depend upon a re-examination of the experiences that are typical of the region. In particular the following subjects should require attention:

- volume, source and nature of funds,
- priority areas in funding,
- income levels, securities and eligibility for loans.

3/ Human Settlements in Africa, ECA Addis Ababa, 1976.

4/ E/CN.14/HOU/76 ECA.

5/ The subject of rural housing finance needs a detailed study by itself and hence not examined in this paper.

32. As explained earlier, housing is an expensive and long term investment asset. Thus due to the slow rate of turn over of housing finance, the volume of money required to establish a housing financing institution should be reasonably substantial if only the institution is to make any impact.

33. It is difficult to state how much capital is required for the establishment of such an institution. It is estimated however, that to meet only the demographic housing needs of the urban areas, between 5.9 and 6.5 per cent of total urban income would be needed for investment. 6/ This excludes the costs of land and services. For the region as a whole, between 7 to 10 per cent of national income may have to be spent on house construction (including land, services, replacement, rural and other needs). While such figures are based upon several assumptions, 7/ they clearly indicate that the task of housing the entire African population is formidable.

34. It is estimated that most African countries develop, on the average two houses (per thousand population), per annum. For a country with 10 million population, this implies the completion of about 20 thousand houses every year. Although, this falls below the recommended UN rate of 10 houses per 1,000 population, it represents a worthy effort mostly on the part of individual developers in the region. What remains is for financial institutions to supplement the individual efforts through the development of local building materials industries, increasing construction capacity and providing direct financial assistance to deserving customers.

35. The fact to note however, is that the primary step in successfully operating a housing financing institution does not depend only upon providing loans to customers. More than anything else, much depends upon an effective assessment of the local building material position, and local construction capacity on the one hand and the regularity as well as volume of loanable funds on the other. Any imbalance between these two areas would generate bottlenecks in the system.

36. It should be emphasized therefore, that for the successful operation of a housing bank, a substantial amount of development fund is required on a regular basis. This will ensure (a) that building materials are readily available, (b) the construction capacity is efficient and sufficient to execute projects and (c) there are funds to meet other requirements of customers such as payments to contractors, provision of services, access ways, etc. The basic function of the housing bank then, is to provide the financial priming for all or part of the above requirements. The obvious question then is which sources of funds are suitable for such operations?

37. Usually, funds from the central banks, pension and social security as well as life insurance schemes have been recommended. However, depending upon the economic situation in each country, these sources of funds would have competing uses.

6/ Refer to E/CN.14/HOU/22.

7/ The estimates do not take into account dispartities in GDP of the individual countries.

38. For example, it could be questioned whether in a country facing high inflationary problems, it would be advisable for the central bank to pump such huge sums of money into the system annually. In most countries also, social security and pension funds are often used for deficit-financing. Since such uses involve current budget issues, most governments are reluctant to formally commit any fixed proportion of the said contributions for investment into housing.

39. In some African countries also, special institutions have been established to collect and administer pension funds. In certain instances, the administrators have found it more profitable to use such funds for the establishment of commercial banks, or to purchase treasury bills or else to develop a few housing estates for rental purposes. Invariably, uses such as the above only appraise the immediate returns that the funds could yield to the neglect of long term gains from the housing sector.

40. Insurance premiums (particularly, life insurace) could constitute another source of fund for such financing institutions. Quite often, however, insurance companies maintain their own closed schemes to the benefit of their customers. Investments in such schemes have traditionally been made in high income residential buildings. In addition, most tax revenues acruing from the housing sector are usually not ploughed back into housing development. They constitute part of the regular public revenue acruing from taxation.

41. These difficulties, among others, explain why most governments prefer the practice of providng a fixed capital to be traded by such housing financing institutions regardless of the shortcomings. However, countries such as Brazil, which have made remarkable progress in housing development in recent times, take advantage of monies acruing from regular social security contributions.

42. African governments should recognize the fact that investment into housing has several multiplier effects on almost every sector of the national economy. A regular supply of funds for housing development could therefore, favourably stimulate other productive sectors of the economy; such funds could be reclaimed not only directly through repayments but also indirectly through increased tax payments from other sectors, increased productivity attributable to good housing, and increased employment avenues generated in other sectors. It could therefore, be argued that although there are several potential sources of suitable funds that could be used in establishing housing financing institutions, the funds are invariably used or invested elsewhere with emphasis on immediate gains. What therefore, remains to be done is for African governments to give statutory approval for the provision, on annual basis, of a fixed percentage of any of the following funds for investment into housing through established housing financing institutions:

- Social security/pension funds;
- Long term insurance funds;
- Fixed time deposits of commercial banks;
- Annual profits of commercial banks;
- Government bonds (for private subscription)

The point to emphasis is that the above sources are not unknown; however, there are no government legislations compelling the administrators of the said funds to pay any fixed portions into housing banks. It is strongly recommended that each government should allocate a certain percentage of such funds for investment into housing.

Housing Cess[8/]

43. A major problem which confronts housing authorities all over the region is the practice whereby some very vital subsectors of the housing sector fall within the jurisdiction of other ministries. For example, building materials fall under industries ministry, housing finance under ministry of finance/ planning, while the ministry of works and power may be responsible for essential services such as water, sewerage, access ways, electricity and the like.

44. The result is that housing authorities do not have any co-ordinated and balanced control over planning the requirements of their sector. Invariably, the other sectors may not accord enough emphasis to those subsectors as would be needed to make the required impact on the housing sector. An example of the above practice is evident in the inadequate provision of finance for housing.

45. As explained earlier, the potential sources of long term savings that are suitable for investment into housing fall under different authorities (such as commercial banks, insurance companies, and authorities which administer pensions and social security funds). These are not obliged to allocate any portion of the funds to housing. These authorities may have their own areas of priority for investment. Ironically, control over housing banks (even where they exist) often falls under finance ministries rather than housing authorities.

46. Under circumstances such as the above, it becomes necessary for housing authorities to exploit other avenues of finance that could be controlled and utilized solely by the housing sector. In this regard, individual contributions promise to be the most fruitful and less controversial.

47. It is strongly suggested that since housing is a basic necessity to life, housing authorities should take advantage of individual aspirations to own a house to introduce a form of housing tax from personal incomes. Such proceeds could be placed under a special "housing cess", so as to distinguish it from other tax revenues accruing to the government and ensuring its utilization for housing development. The responsibility will be for the housing ministry to control its chanelling into housing.

48. Some African countries have already taken the initiative in this direction. For example, in Togo, there is the Fonds National de l'Habitat to which workers contribute; railway workers in the Sudan contribute towards a special housing and transport fund organized by the trade unions. There is however, no information as to how effectively the revenue accruing from the above sources is utilized.

49. It is therefore, suggested that housing ministries should insist upon their governments for the introduction of the "housing cess". Nevertheless, since in most African countries, workers have almost reached their maximum taxable capacity, the percentage tax for the proposed "housing cess" should not exceed 2.5 per cent of gross salary incomes.

8/ The uses of "Cess" is stressed here in order to restrict the use of the proceeds to the housing sector.

Estimated volume of funds

50. It is not possible to estimate the volume of funds that could possibly accrue from the sources discussed in this paper due mainly to unavailability of required data. However, for purposes of illustration it is assumed that for a particular country, gross annual salary payments in the organized sector could amount to about $200 millions. Based upon this assumption, the following sums could be available for investment into housing through established financing institutions, (if the suggestions made earlier are followed).

Table 1: Estimated Funds

Source	% Contribution		Total		Housing Fund
	Worker	Employer	$ Million	%	m. per annum
Social security and Pension Fund	5	12	34	20	6.8
Housing Cess	2.5	-	5	100	5.00
Other sources *	-		-	100	11.08
Total	-	-	-	-	23.6

* These include parts or all sources mentioned under paragraph 41.

51. It would be noticed that although the percentage contributions are moderate, (varying between 2.5 per cent to 5 per cent of gross income per worker) the total annual contribution could be enormous; this could make a realistic impact on the housing sector, including the development of building materials.

Generating a revolving fund

52. A critical stage in the administration of a housing financing institution is the level at which total repayments are sufficient to meet development targets set by the institution. For example, if after a certain year, total loan repayments are sufficient for reloaning to customers for the development of the 5,080 houses estimated in Table II, it could be said that a revolving fund is generated. While this implies that the number of houses to be developed per year (as well as the number of beneficiaries) is fixed, it emphasizes the fact that the institution pursues a systematic development and lending programme. To a housing financing institution, this should be regarded as a form of break even point.

53. Most housing financing institutions are not able to generate revolving funds because of their failure to follow any systematic programmes and also due to the fact that they do not analyze effectively all the areas which constitute priority subsectors for funding.

54. The occurrence of leakage, capital lock up and resultant inactivity of financing institutions could result from several factors. In housing, however, the main cause is the delay in project completion. The latter results, among others, from unavailability of building materials on the one hand, and inadequate construction capacity on the other 9/. While these two factors would not be discussed in this paper, it is important to point out that most housing banks in Africa become inactive because of their failure to effectively analyze the building materials position and local construction capacity before advancing loans to customers. The result is that most houses are left uncompleted because there are no building materials or else the contractor is ill-equipped to complete the project.

55. The direct implication is that the development of building materials, the establishment of plant pools and contractor pre-financing should constitute part of the financing activity of housing banks in Africa. It is therefore, suggested that at least 40 per cent of the sums paid to such banks from regular sources suggested earlier (see Table I), should be allocated to the following uses according to the percentages suggested.

- Development of new local building materials industries	40%
- Provision of operating capital to the above industries	10%
- Provision of supplementary/rehabilitation loa-s to old building materials industries	15%
- Establishment of plant-pool	30%
- Provision of prefinancing facilities to deserving contractors	5%

The above five areas of expenditure constitute inevitable factors of any housing development programme and as well as vital areas which could contribute to minimize delays in the completion of housing projects. The proposed percentage allocations are presented in Table II as follows:

Table II: Sectoral Disbursement (at Institutional Level)

Amount in $m.	Building materials		Total for housing	No. of houses at $2,000/houses p.a.
	%	$m	$m	
* 23.6	40	9.44	14.16	5,080

* The total sum of US$23.6 millions estimated under Table I equals 100 per cent for the present Table.

9/ Changes in government policy could also adversely affect project completion in the housing sector.

Income levels and eligibility for loans

56. Another factor which requires the attention of African governments with regards to institutional financing of housing relates to income levels. As mentioned earlier, financial solvency and profitability are inevitable requirements of housing banks. Such institutions would therefore, naturally provide loans to customers whose rent cap-cities are not too low. However, the majority of the African population earn rather low incomes and cannot afford to pay economic rents. And yet the low income group actually represents that segment of the population which is genuinely in need of financial assistance to build houses.

57. Another practical financing mechanism for low income groups could be the development of a tripartite consortium financing system involving the government, the employer and financial institutions. Under such a system, the government should develop the necessary infrastructure in the form of roads, drainage, sewerage, water and electricity to the housing project site. The employers should contribute part of their profits as initial deposit for the project while the financing institution provides the remaining amount as loan. It would be observed that in some African countries such as Ghana, employers are obliged by law to pay rent subsidies to their employees. However, since these payments are thinly distributed among individual workers, they do not contribute to increase the housing stock; rather they help to increase prevailing rents.

58. The proposed tripartite financing system could prove very valuable to most African countries if rent subsidies such as discussed above are chanelled into a housing bank and utilized to increase the housing stock. One factor which should be noted is that the contribution from employers could always improve employer-employee relationship, labour stability and higher productivity.

59. However, a major problem which could be foreseen in such a system of financing relates to ownership and administration. A question to be answered is whether the house belongs to the occupant or employer? Given the probability of job instability and mobility of labour, which party takes precedence over the estate? These are problems which could readily be solved through appropriate statutory legislation.

PART THREE

Guidelines for future actions

60. Most African governments realize the valuable role that institutional financing could play in housing development. However, attempts at establishing such institutions have not met with much success in most countries. Some of these institutions are either dormant, short of loanable funds or have made no appreciable impact on the housing scene except in name.

Such experiences however, provide valuable lessons for future action. It should be stated that any successful evolution of human settlements financing mechanisms in future would depend largely on effective statutory backing. Present experiences seem to indicate that while African governments are not unaware of what action to take most of them are reluctant to provide the necessary legal backing because of competing demands. It is therefore suggested that all African governments should examine and adopt the following recommendations as primary steps towards establishing financing mechanisms for human settlements.

- It is insufficient for governments to establish housing financing institutions based on fixed financial capital. Annual allocations are inevitable until such a time that a revolving fund is generated through loan repayments.

- In view of the competing demands for public revenue, African governments should give statutory backing for a reasonable percentage of social security fund contributions to be chanelled to such financing institutions for housing development.

- Inasmuch as low income workers are involved, assistance from their employers will be crucial to increase their rent capacities as well as offering the required securities for institutional loans. African governments should therefore encourage employers to contribute a part of their annual profits towards the provision of housing for their employees.

- Individual contributions, however, appear to be the most promising and less controversial source of finance for housing financing in Africa. The establishment of a housing cess derived from individual incomes is therefore recommended.

- In order to minimize the problem of delays in project completion and leakages in the financing system, the development of building materials; establishment of plant pools as well as contractor prefinancing should qualify for housing financing loans. In light of the above, housing financing institutions should allocate a fixed percentage of their annual investment capital for assistance to building materials industries and local construction firms.

- The use of parts of the accumulated profits of commercial banks for housing purposes should also be considered by every government. As much as possible, such funds should play leading roles in the establishment of building materials industries and plant-pools.

CONCLUSION

61. Several factors inhibit the successful functioning of human settlements financing mechanisms which are practiced in Africa. The most important pertain to the fact that insufficient funds are allocated for the housing sector due mainly to requirements from other competing sectors of the economy.

62. However, a more potent factor which cripples attempts at developing innovative human settlement financing mechanisms in the region relates to the fact that housing authorities do not traditionally have sufficient control over the sources of funds that could be suitably invested into housing. In addition, the most vital subsectors of housing, particularly building materials, land, and finance are usually not put together under housing authorities but rather divided among different ministries. The effect is that in most countries insufficient attention is paid to housing financing when examined as a unified sector.

63. Probably, an effective way to overcome the difficulties relating to housing financing is through effective government legislation so promulgated as to channel parts of long term savings as well as portions of accumulated profits of commercial banks for the development of the human settlements sector.

64. A rather promising source of less controversial fund is individual contribution termed in this paper as "housing cess". This source of fund has three main advantages, namely, convenience of collection, regularity of supply and the possibility of securing its use solely for the housing sector. Housing authorities are urged to recommend to their governments to consider the possibility of introducing this system as well as the appropriate ways of its administration.

65. What should not be overlooked, however, is the need for statutory legislation which could provide the necessary legal backing for any of the financing mechanisms that might be adopted by any government.

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LC/NAIROBI

A FRAMEWORK OF STRATEGY FOR THE DEVELOPMENT OF THE CONSTRUCTION SECTOR IN THE AFRICAN REGION

M82-632

Introduction

1. The fundamental objective of the strategy of Monrovia and the Lagos Plan of Action is regional, subregional and national self-sustaining development and economic growth based on collective self-reliance and aimed at improving the standards of living of the mass of the African people and reducing mass unemployment.

2. Self-reliance and self-sustained economic and social development implies comprehensive economic and social development planning in which human settlements policy component has a very significant role to play to ensure the integration of peoples welfare in development. As a matter of fact human settlements are places where social, economic and cultural facilities are located. Therefore, policies and programmes in the field of human settlements should constitute critical elements for attaining the objective of the Lagos Plan of Action.

3. Human settlements has a direct relationship to population trends and growth and living conditions of people. Because of this, apart from housing for the people, appropriate location and construction of infrastructure like utilities related to transportation and communication network education and medical facilities, etc. must form part of the planning of human settlements. The efficiency of development of human settlements will greatly be influenced by the complementary development of the various components of the infrastructure in a framework of unified approach. Failure in the past to adopt such a unified approach in formulating human settlement policies has been the cause for the desultory and ad hoc state of human settlements development in the African region. In other words the process of effective integration of human settlements development in national planning must first be based on an internal integration within human settlements development in terms of its major components.

4. As a tangible factor directly related to population trends and growth and living conditions of people, housing has naturally been the subject of prime attention in the framework of human settlements development. In practice, this has not been adequate for the fulfilment of the overall objective of effective integration of human settlements development in national planning because the complementary development of some of the other components of human settlements referred to earlier, in particular the infrastructure, has not kept pace with the rate of growth of housing development. A major reason for this situation is the imbalance in the rate of growth of the infrastructure connected with human settlements in relation to the rate of growth of human population and its needs. The further imbalance (which is rapidly increasing due to concentration of attention on urban development) between the urban and rural segments of human settlements development can also be traced to this situation.

5. A comprehensive programme of human settlements development has therefore to be formulated and implemented on the basis of an internal and external integration of human settlements through subsectoral programming and co-ordination. This subsectoral programming has to be specifically structured to meet the priorities and conditions prevailing in African countries.

GENERAL CONSIDERATIONS

Role of construction in human settlements development

6. Building and construction are a fundamental infrastructure for most forms of physical expansion and economic growth. The structure and growth of the construction sector may therefore said to be guided by the structure of economic growth as a whole. For example, in developed countries, investment in the construction sector is not only higher (over half of the total investment) than in any other sector but such investment is on a continuous basis and the formulation and adoption of clearly defined policies and strategies for the construction sector forms part of the policies and strategies for national growth. In Africa, the construction industry constitutes about 40-56 per cent of total capital formation compared to the European norm of 51 to 66 per cent.

7. The clientele of the construction sector is very large covering practically all the sectors of the economy and is not confined as generally misunderstood, to the housing sector alone. Organized housing accounts for only 30-35 per cent of the output of the construction industry. (This percentage does not take into account the housing activity in the informal sector in the urban and specially the rural areas). The larger share of 65 to 70 per cent is taken by major works and public infrastructure (dams and irrigation, industry, transport, public health education and other services). In the planning of the construction industry development, it is important therefore to ensure that a proper balance is maintained at all times in terms of continuity of demand not only from the housing component but also from the infrastructure components like roads, schools, hospitals, water and electricity supply, sewage disposal system, etc., which are directly related to housing from the point of view of the needs of the human population and from the other sectors of national economy, such as industry, communications, transport, agriculture, trade, etc. It is only on the basis of such a balance that the construction industry will be able to develop itself adequately both in quantitative and qualitative terms and thereby fulfill its responsibilities in respect of human settlements development as a whole.

Present position of the construction sector

8. The construction sector comprises three components namely, building materials; construction equipment and accessories; and construction services (representing skills such as the expertise of architect, town planner, quantity surveyor, civil engineer, contractor, mason, plumber, carpenter, electrician, welder, etc., and the supporting construction labour force). The completeness or effectiveness of the contribution of the construction industry will be judged in terms of all these components. Unfortunately, the general position in this respect at present in most African countries does not reflect the required co-ordination and harmonization between building materials, construction equipment and accessories and construction services in regard to their availability.

9. Experience from most African countries indicates that one of the factors which stall the implementation of some of their economic and social programmes is the state of unreadiness of the construction sector (in quantitative and qualitative terms) to meet the needs. There is a heavy dependence on foreign construction technologies services and imported building materials. The construction systems as well as the building codes and regulations which are in vogue and which guide construction practices are in general of foreign origin and are, very often ill-suited to the actual needs as well as conditions in African countries. As a result, the cost of building construction is very high in the region. This situation affects seriously human settlements development and requires to be corrected through the formulation of special policies and adoption of special promotional measures in order to strengthen basically the capacity of the construction sector.

Needs of the construction sector

10. A major drawback of most attempts to develop the construction capacity of African countries is the failure to adopt a comprehensive approach which takes into account all the component factors that constitute and influence the con struction industry. Among these factors the following should be considered as basic for any rational and concrete approach to the problem:

(i) Full awareness of the construction potential (including demand) both on short and long term basis,

(ii) Continuous government and public support to the construction sector to enable it to improve its contribution both in quantitative and qualitative terms,

(iii) Financial strength and investment capacity of the construction sector,

(iv) A strong base of indigenous skills and manpower,

(v) Adequate availability of required building materials, construction machinery, accessories and tools,

(vi) Technology development and improvement in respect of building materials, constructions and construction practices.

11. The fundamental approach to any realistic solution of human settlements problems requires a proper assessment of the nature and magnitude of the problems. It may be said that in most of the member States, the problem has been that human settlements planning is being done on a narrow angle of sectoral self sufficiency. For example, the plans for a health programme would imply the construction of health infrastructure such as hospitals, clinics or welfare centres. Even though the implementation of such a planned health programme will to a large extent depend on the condition of the construction sector (particularly construction and building materials capacity) to play an important and timely part the usual position is that the authorities who are responsible for planning the health programme are not in a position to appraise and properly organize the required interrelationship between the proposed health programmes on the one hand and the construction capacity and building materials on the other. Examples of such non-co-ordination can be found in the planning of other sectors also. The main reason for this is that this type of approach at national level ignores

the fact that programmes from all sectors of the economy require construction in one form or the other that such demands arise at about the same time and that the capacity of the construction sector to be able to meet for example the needs of the health sector must fit in with its overall capacity to meet the construction demands from all its other clients like industry education agriculture transport etc. While it cannot be the responsibility of the health sector for example to ensure that the construction sector is in a position to meet the composite demand from all client sectors, it should reasonably satisfy itself that within its overall capacity the construction sector would be able to meet its (that is the health sector s) demand and in time. Towards this purpose, it should plan its demand on the construction sector in detail and well in advance and make it known through appropriate consultations with the construction sector. 1/ So too must the other client sectors do and have their respective demands noted in time by the construction sector. This exercise must be followed by a self assessment by the construction sector of its capacity, limitations and needs for meeting the totality of demand from all of its client sectors and working out a development programme which would take care of its needs.

12. The construction sector as it exists today in the African region is not well organized for the above mentioned task. It is a task which it can no longer neglect. It is however a task which it cannot successfully undertake by itself and in which it will badly need the services of a focal point in the government which can co ordinate the various demands, take into account their priorities and urgency, critically assess the capacity of the construction sector to respond to the total national demand and assist the construction sector in obtaining its needs.

13. It is therefore obvious that the formulation and execution of settlements programmes which depend on construction capacity should be prepared to

- reflect the construction requirements from all sectors

- correlate with the construction capacity of the country

- specify building materials requirements (in quantitative and qualitative terms) that are needed to support the total construction programme

- provide effective governmental support to strengthen the capacity of the construction sector.

14. Unless human settlements programmes are so prepared to reflect the requirements from all sectors as well as relate these needs to the national construction capacity and building materials production capacity structural bottlenecks would continue to exist and inhibit the successful implementation of the programmes.

1/ See paragraph 25.

15. As explained earlier organized housing claims a relatively smaller share (30-35 per cent) of the construction demand. Nonetheless it has a priority claim and represents a vital segment of the demand. Housing as a block demand and on social, economic and political considerations will continue to be an index of construction and has to be expanded in quantity and quality. Rural housing which is at present entirely a self effort and exists under severe handicaps will require special attention in the framework of gradually increased urban rural integration of human settlements. Even if housing represents only a smaller part of the construction demand, it still is the only pre-determinable yardstick or factor for computing the construction demand on a continuous basis. The housing needs stem from three basic sources: rapid population growth, rapid urbanization and decadence of existing stock. Other secondary factors such as demolition, natural disaster, etc. also contribute. New formulae for estimating the quantitative housing requirements satisfactory to African conditions need to be evolved based on population growth and movement trends as well as the gradual improvement in the income and life style of the population. By all estimates, the quantitative housing needs of Africa will be enormous and there will be increase in the rate of growth of this demand. Although the least densely populated region in the world Africa is experiencing the most rapid urban growth on an average of 5 per cent per annum.

16. The other major dimension of construction demand as briefly explained earlier will be from other larger and national public infrastructures which pertain to economic development but nonetheless are indirectly related to the growth and quality of human settlements. These demands will need to be assessed on the basis of the long range economic development plan of each country.

17. The qualitative aspects of construction are also of significant importance and must receive special attention in the planning of the development of the construction sector. These cover on the one hand the quality of the buildings and the building materials used therein and on the other the techniques used in the building process. For example, by correlating technical specifications, the building materials which are appropriate for the particular construction needs would be used to ensure that the quality of the construction is not compromised. In most African countries, constructions are based on building practices which are of foreign origin, these practices are most often ill suited to the actual needs of the region.

18. Adoption of foreign building practices also necessitate the utilization of imported building materials and hampers the local development of building materials based on available raw materials. Africa's net imports of building materials for the year 1976 and 1977 amounted to US$3,020 million and US$3,680 million respectively, while the total expenditure on construction amounted to approximately US$10 billion for each of the two-years. Self-reliance in respect of building materials would mean very substantial savings in foreign exchange.

19. It is obvious that actions to reduce the dependance on imports of building materials should receive priority attention. The demand for Cement and Steel as the dominant building materials would continue because of their indispensability for particular applications in some urban and public constructions. Production facilities for the two materials must therefore be set up or expanded wherever feasible. Co-operation arrangements between interested countries may be necessary in some cases because of the large size of capital investments involved in the

setting up of cement and steel plants, the scattered availability of the basic raw materials like limestone, iron ore, coal etc.; and the general position of country level demands for cement and steel not matching the minimum economic size of conventional cement and steel plants. There is however scope for minimizing the use of costly and scarce materials like cement and steel through their judicious utilization in construction. The present tendency of considering cement, for example, as the only durable construction material should give place to a recognition of the potential of alternative materials and to their effective utilization. Indeed, these alternative materials can also provide some advantages in cost reduction in construction which is one of the objectives of the Lagos Plan of Action.

20. The programme for qualitative improvement in construction should also take care of the needs of improved walling and roofing of rural housing in order to enhance its durability and improve its resistance to deterioration on account of fungus, insects, fire, rain, wind etc. The constructions are generally based on locally available materials and it is possible to improve their quality through technological innovations and governmental assistance, without basically interfering with the rural custom of self-construction at very low cost.

21. It is seen from the above-mentioned position that the building materials industry is a key element of the construction sector. Its rapid expansion has to be brought about on governmental as well as private initiative and through a network of large, medium and small scale plants as appropriate to the conditions in individual countries or groups of countries. The main objective of the planning of the production of building materials should be to ensure their availability at the points of demand for the construction industry.

STRATEGY FOR DEVELOPMENT

22. It would be difficult to suggest a single policy or strategy which would be suitable for all African countries. Each country must design its strategy as is appropriate to its needs and priorities. Nevertheless, the improvement of the building construction situation aimed at achieving self-sufficiency in the earliest possible time calls for a package of short, medium and long term policies and strategies, their translation into practical programmes and activities and the provision of support facilities in the form of institutional structures and personnel for carrying out the activities.

23. To achieve this, the construction sector must be re-organized and developed in terms of its two basic components, namely (a) building materials, and (b) construction services since each of these has its distinct identity. It is important that the strategies and activities aimed at construction development should cover the two components individually and together on a balanced basis. National, subregional and regional responsibilities will need to be identified. To this end the following guidelines for strategy are suggested.

Basic prerequisites of the strategy

24. The establishment of requisite support facilities including institutional structures and manpower development has to be an important component of the strategy as much as the policies themselves are. The policies and strategies will, in turn need to be elaborated clearly in terms of specific national, subregional and regional responsibilities according to the needs of the countries and the subregion.

Need for nodal approach at national level

25. It has been observed that the responsibilities at the national level for the development of the construction sector are generally diffused in most countries over a number of departments and agencies and consequently, the implementation of programmes tends to be on individual and un-co-ordinated basis. This causes a lopsided development of the construction sector with an inherent weakness apart from the wastefulness of expertise, resources and developmental time. If the prevailing situation of shortages of construction skills and materials has to be basically rectified it is necessary to undertake a co-ordinated and in-depth study to visualize the total construction demand potential (covering all sectors of economy) on a long term perspective of about 20-25 years, identify the individual elements of the demand potential outline the specific input and output linkages for each of the elements draw up a comprehensive plan of action for the development of the various elements, specify agency responsibilities and provide a centralized direction, co-ordination monitoring and support to the implementation. The announcement of such a comprehensive and detailed plan will greatly stimulate the public and private building and building materials trade to undertake their own individual planning activities in time and on the basis of an assured demand for their services and the continuity of the demand. In fact, one of the basic reasons for the lack of initiative on the part of the indigenous construction sector to qualitatively and quantitatively analyse the requirements and plan its own growth is the uncertainty of what kind of support-promotional, financial, etc. - would be available. From the standpoint of organizing an effective centralized direction, co-ordination, monitoring and support so vital to the development of the construction sector on a new basis, it would be useful if, as a matter of development strategy, African governments could **set up** a 'nodal mechanism' in one of their appropriate ministries/departments with special mandate and focal authority to plan comprehensively the total development of this sector on the basis of the needs of each user-sector, organize the required inputs and linkages in time, help to resolve bottlenecks and delays and ensure the efficient implementation of the programmes and projects decided upon. It is gratifying to note that some African governments have recently set up such a machinery or re-oriented their administrative systems and procedures for this purpose.

Nodal approach at subregional level

26. There is need for a similar focal point at subregional or intergovernmental level in order to organize jointly the development of specific aspects of the construction sector, for example, raw materials, building materials production, building and building materials technology, construction manpower training etc. The establishment of "Building Materials and Construction Industries Development Council" within the framework of existing intergovernmental committees or economic communities or on any other mutually agreed basis is suggested for this purpose. The nodal mechanisms suggested in paragraph 25 above could be the national linkages for the Development Council.

Regional component of development strategy

27. Developmental impetus at regional level is also a necessity in order to supplement national and subregional efforts by way of providing guidelines on overall development of the construction sector and organizing the linkages and co operation arrangements within the African region and with countries outside the African region and with international agencies. Technology promotion, dissemination of information, feasibility studies, consultancy services, training programmes, promotion of pilot plants and demonstration projects are some examples of the potential for regional contribution to the development strategy. The Economic Commission for Africa has launched a regional development programme for this purpose covering aspects pertaining to policy and institutions, building materials production building and building materials research, construction services etc. The current phase of this programme is scheduled to terminate in December 1993. The active support of African governments for and their close involvement in the various activities of this programme is essential and through such support and involvement, the future phases of the regional programme with new dimensions oriented to the specific priority needs of African countries, should be determined and implemented.

Guidelines for the development of specific components

(i) Building materials

28. Building materials development must have a two-fold objective (a) increased availability through increased production capacities and (b) economy in production costs through maximum use of local raw materials, adoption of less sophisticated technologies, efficiency of plant operation and maintenance and decentralization of production wherever feasible. The reason for this is evident in the fact that building materials account for 50-60 per cent of construction costs and hence should be a prime target for reducing construction costs.

Raw material aspects

29. The nature and technical capacity of building materials industries in Africa vary from country to country. While some industries operate very satisfactorily, some others suffer from the following chronic defects, among others: a high input of imported raw materials with a correspondingly low input of local raw materials, inappropriate technology and under-utilization of capacity. Most building materials industries in Africa operate on the basis of technology imported from highly industrialized countries. Barring exceptions such as plate-glass, most materials in common use such as burnt brick, lime and cement have the advantage of a relatively broad choice of production technology. It is necessary to assess the merits of available technologies and choose those best suited to local materials and needs and reduce the need to import raw materials which meet certain criteria if alternate materials which are equally good but have slightly different properties are available locally. A detailed inventory of the available raw materials resources (with particular attention on limestone, dolomite, gypsum, clays, quartz, felspar and secondary species of wood) has to be organized and the compilation and dissemination of information on their availability and scope of utilization must receive high

priority. There are several agricultural residues such as rice husk straw, coconut and palm fibre and industrial wastes such as metal slag boiler coal ash etc., which are excellent supplementary raw materials which can be converted into building materials for walling and roofing of buildings. Governments must adopt strategies which will promote their increased availability and utilization. Simple technologies for their utilization are available.

Cement

30. Because cement is universally used in all types of buildings and civil engineering projects, the cement industry is a very important subsector of the building materials industry. The process of manufacturing cement is a simple one but nowadays, it is so highly mechanized that a large capital outlay is required. Although the per capita consumption in Africa is still lower than the world average, the production of cement has increased more rapidly in Africa than anywhere else in the world. The highest rate of growth was recorded in the West African subregion. In spite of this progress, Africa is still a net importer of cement. West, Central and some parts of Eastern Africa face a chronic shortage of cement. As a matter of first priority cement producing countries must explore all possibilities of optimizing production within existing plant-capacities through process innovations and improved plant operation and maintenance techniques. Secondly, a 20-25 year development programme for increasing cement production in the African region through the expansion of these plants and the creation of new plant capacities in new locations should be drawn up and its implementation should be organized and effectively combined with a development programme for quarrying of limestone and gypsum. It would be best if neighbouring countries could organize the required infrastructure on a mutual co-operation basis and share the output of raw materials and the production of cement. Thirdly, as a basic strategy, new concepts of cement production involving smaller size plant capacities (for example 25 to 100 tonnes per day) and minimal mechanization must be adopted wherever feasible so that small size raw materials reserves are not ignored on the basis of conventional Western practices and technologies which are oriented to production on a very large scale. Such decentralization of cement production will respond to local demands without long distance transportation constraints.

31. At the same time, as explained earlier, the strategy must also be aimed at curbing the consumption of cement through promoting the production and utilization of alternate materials like lime which are also comparatively easier to produce and cheaper than cement. Hydrated lime can be produced easily from locally available raw materials in most African countries and can effectively meet the end-use of construction in many cases in terms of performance durability and utility considerations. It is a building material which deserves to be given some importance in the efforts towards self-reliance in the construction sector. In a sense, the earlier process of cement gradually replacing lime must be reversed on the basis of specific promotional strategies including the popularization through pilot plants and demonstration projects. Indeed, the lime industry can be well developed even as village and small town activity on the basis of simple equipment, technology and skills and very small investments.

Clay products

32. In almost all African countries, walling materials of one kind or another are being manufactured. Burnt clay bricks and hollow concrete blocks are two of the most commonly used materials produced at an industrial level. Brickmaking is an ancient art, which is practiced in accordance with traditional methods which have

been perpetuated to modern times and often leave much to be desired. The methods of manufacturing bricks and the management of the plants engaged in their production have to be improved even in modern brickworks which exist in a few countries. The almost total absence of experts specializing in burnt brick masonry has made the situation worse. In almost all countries, there is increasing use of hollow cement blocks which are regarded as "permanent construction material". Although their physical properties (porosity, heat insulation and sound proofing, etc.) are ill-suited to African conditions, and in some cases they have mechanical drawbacks (because of being poorly manufactured) these materials have in the end been accepted as the ultimate solution even for the construction of the most modest shacks. In view of the high price of cement and its scarcity in some countries and because good clay for making bricks can be found almost everywhere in Africa brickworks should be promoted on the basis of improved technologies and technical assistance on ways of improving the quality of production. Brickworks are also ideal for decentralized activity. These brickworks can also undertake the production of clay roofing tiles as a substitute for the galvanized iron and asbestos cement sheets which are very expensive, scarce and are generally imported.

Other materials

33. In the field of electrical fittings, wires, cables and fixtures, porcelain and other ceramic ware, plate and sheet glass, etc. Africa depends heavily on foreign sources and the expenditure on the imports of these items is substantial. Where national markets are too small for the local manufacture of these items subregional or other basis of co-operative arrangements for production should form part of the strategy.

Supply and distribution system

34. Above all, irrespective of whether these building materials are manufactured in the public or private production system, governmental assistance will be necessary in ensuring their availability wherever demand exists for these materials. Without this assistance, the construction sector will continue to remain handicapped and powerless to discharge its obligations properly. Appropriate transportation, supply stocking and distribution infrastructure should therefore be set up. Banks can be a useful media for promoting an efficient stocking and distribution system.

(ii) Construction services

35. The construction industry expands and contracts significantly in response to fluctuations in demand. This is a pattern characteristic of the majority of African countries. Often a substantial annual fluctuation in the output of certain sectors of the industry can be observed following the initiation and completion of major infrastructural works (dams, large irrigation schemes airports, harbours etc.) For such projects, the industry relies on the vast reserves of unskilled labour easily recruited when a new job is started and dismissed as it nears completion. The price it pays for this ability to adapt to demand is high in terms of the effective use of human, technical and financial resources. Major works may also include jobs relating to the manufacturing industry transport, trade, roads public health education and other public services. The major works subsector accounts for between 65 and 70 per cent of all building and has a direct impact on the development of the construction industry in African countries.

Basic handicaps

36. The major handicaps faced by the construction industry are firstly fluctuating demand and uncertaintyof construction opportunities and secondly, its very low priority status in the eyes of financing institutions. Additional problems (for indigenous construction sector) are stiff competition from foreign companies (who have the advantage of finance, modern technology and construction skills) and lack of infrastructure (local organization and access to latest technologies). The development strategy to assist the construction industry must therefore be basically aimed at these aspects.

Need for comprehensive construction planning

37. The starting point should be to set up a national committee composed of all user-sector departments (agriculture, education, health, industry, energy, trade, communications, transportation, tourism, employment, etc.) as well as concerned private interests and entrust it with the responsibility of drawing up a long term (say 20-25 years) perspective of construction demand (quantitative and qualitative). The 'nodal mechanism' referred to earlier (in paragraph 25) should analyze this demand in terms of its specific elements (building materials, construction services, finance, manpower, institutional facilities, etc.) and outline the sectoral and sub-sectoral linkages and responsibilities to enable the government take appropriate decision and announce a national plan for construction sector (indicating the short, medium and long term phases and the expected inputs from government and non-governmental sources). The plan will basically be a blue-print of the construction demands that are envisaged over a long period and serve as an advance guideline for the construction sector as well as other services (financing, education, employment, industr etc.) to prepare themselves individually and collectively for meeting the demand. The government, through the 'nodal mechanism' should periodically review and guide the progress of actions for the fulfilment of the objective of the plan.

38. Within the framework of above general strategy, immediate attention will be necessary on the following:

Reformulation of building codes and regulations

39. One of the serious impediments to the development of the construction and building materials industries is the irrelevance of prevailing building codes and regulations to the actual needs of African countries. Even after 20 years of independence, almost all the countries are still adopting the codes laid down by the colonial regimes based on the needs of their own countries. It is true that here and there some changes had been made but they are not significant. When asked about the criteria governing some provisions, Government authorities responsible for applying these rules often find it difficult to rationalize them. There is a diversity of standards and specifications on building materials which add greatly to construction costs. The tests and specifications required in respect of one and the same material are those laid down in AFNOR, BS, DIN or ASTM specifications depending on whether the source of funds or the firm responsible for the job is French, British, German or American. Little need is paid to local conditions in the country where the work is being done. Finally, the regulations applicable to urban planning categorically prescribe the use of specific materials regardless of whether the materials are available or not. Therefore from the perspective of both production and of intra-African marketing, the development of the building

materials and construction industries calls for the formulation and application of new codes, regulations and other uniform texts covering the subregions whose bounderies are determined by the presence of similar physical and sociological conditions. The task of preparing such texts could be undertaken with the help, for example, of the subregional Building Materials and Construction Industries Development Councils referred to in paragraph 26.

Building and building materials research

40. This is a vital component of construction sector development. At present there are very few research institutions in Africa in the field of building and building materials. The shortcoming and difficulties mentioned above, all of which help to make the building sector particularly costly for African countries, can, for the most part be adequately solved through well organized research on building practices and production of building materials. If research is to make an effective contribution to the building industry, specific targets must be set for it and a well defined approach adopted. Research should begin by identifying the functional needs and should in that sense be of an applied nature. It should also develop the building materials and construction industry through standardization and by carrying out studies in pilot units. Since the building and building materials industry generally has no large organizational base and has insufficient financial means to enable it to carry out its own research, there should be specialized research institutions to provide the industry the logistic support which it needs to solve its special problems. The research centres should also be instrumental for the development of an African cadre of construction and construction materials specialists and technicians.

41. Since research is very costly, and the needs and conditions in the building industry are somewhat identical in some countries, African governments should in the first instance, explore the possibility of promoting a joint facility for building and building materials research on subregional or any other basis and use it as an instrument to gradually develop/strengthen national research centres. In this connexion, based on the recommendations of the meeting of the Directors of African building and building materials research institutes (convened by ECA in Bujumbura in April/May 1980), feasibility studies have been carried out by ECA on the establishment of a joint research centre for building and building materials research in the West African subregion (for catering to the needs of Benin, Guinea, Ivory Coast, Mali, Niger, Togo and Upper Volta through the transformation of the existing 'Centre de la Construction et du Logement' at Cacavelli, Lome, Togo) and in the Economic Community of the Great Lakes Countries (for catering to the needs of Burundi, Rwanda and Zaire). Follow-up actions for promoting the establishment of the two research centres are under the consideration of the Governments concerned. The scope for establishing similar joint research centres in other subregions needs to be studied. Along with the research services, there is also need for setting up a suitable network of user-oriented information services pertaining to building materials and construction industries, at national, subregional and regional levels with appropriate international linkages.

Construction technology

42. Experiences from all over Africa indicate that there is considerable scope for improvement in the prevailing construction techniques. On most construction projects, the use of imported materials, inefficient and insufficient use of sophisticated machinery/equipment, the neglect of overabundant local labour and material resources leave much to be desired. Apart from this, the tendency (by engineers and architects) to over-design and the failure to correlate construction capacity, building materials and skills to the accepted designs underline the distance between professional practice and the reality of the needs of the region. In effect, Africa is yet to adopt the appropriate construction technology that duly recognizes the local needs and utilizes the resource endowments of the region. Engineers and architects in the region must recognize the potential for technological flexibilities that exists in the construction sector and the fact that the appropriate construction technology cannot be practiced only at the project site but right from the planned phase. In order to foster the adoption of the appropriate construction technology the strategy should cover the following:

- an effective co-ordination between the designer, the builder and the client;
- an effective evaluation of the construction capacities and available construction machinery and equipment;
- development and use of local building materials and skills,
- the use of simple designs which meet the basic engineering requirements,
- the adoption of realistic standards which reflect local conditions.

Field services

43. Efficiency in the construction sector would largely be determined by the availability of certain vital field services which most contractors in Africa cannot afford to provide by themselves because of their financial constraints. In a region where construction projects are widely dispersed (and limited in scale), an effective development strategy should include the provision of field services such as technical support, plant pool, repair and maintenance services as well as material depots evenly distributed in the country to service the construction sector. This is an area for the attention of governments, financial institutions and associations of builders for formulating innovative schemes to assist the contractors.

44. Even on large scale projects such as dam construction which could utilize large numbers of unskilled labour, technical skills for estimation, supervision and management are crucial for efficient execution. Building construction for example utilizes a high percentage of artisanal skills which are lacking in most countries. Quite apart from the apparent shortage, it appears that most contractors cannot afford, financially, to employ permanently such skilled personnel. The construction sector would, therefore, benefit if such services are provided by governments or allowed to be organized with government assistance. Some African coun-ries (for example, Kenya, Swaziland, Togo and Zaire) have already initiated action in this direction. The scale of their operations will need to be enlarged. In countries where such services are now absent, efforts should be made for their promotion.

45. Another area which requires field service in the construction sector is the provision of plant hire facilities. To most individual contractors in Africa, the solution to the problems of high costs of construction machinery, increasing maintenance cost, the variety of machinery types required at each project site, the scarcity of operating and maintenance skills coupled with gross under utilization of plant capacity would seem to lie in a scheme which could provide central plant hire services facility as a more practical and economical alternative to individual ownership. Plant hire facilities are generally insufficient in Africa and where they exist, the hire rates are prohibitive. It will therefore, be helpful if governments themselves could come forward to sponsor the creation of plant pools to be utilized by contractors who could hire the equipment on reasonable charges.

46. Closely related to the above is the problem of absence of machinery repair workshops in most African countries. The absence of such facilities has rendered several construction machinery and equipment inoperable in many African countries. Most of the individual contracting firms are either too small to maintain and operate independent repair workshops or do not possess sufficient number of machinery to justify the establishment of such facilities on their own resources. Under such conditions African governments should endeavour to provide the said facilities at central locations to the benefit of operators in the sector.

47. A final area which requires such field service facility is the storage and distribution of building and construction materials referred to earlier. Quite often, the central location of building materials depots too far from points of demand the stock of materials that are unsuitable for any immediate purpose and difficulties in transportation and distribution, contribute to the creation of an unfavourable operating atmosphere to the construction sector. Governmental assistance is therefore required to establish distribution centres, evenly located to facilitate ready availability of materials for the smooth execution of projects.

Skills and manpower

48. The skills and manpower situation in the construction sector requires a critical examination. In many countries, there is a serious problem of shortage of skilled technicians like architect, town-planner, civil engineer, quantity surveyor, etc. The cadre of indigenous contractors is insufficient and is weak in terms of construction experience and services and lacks financial and technical strength to take on large construction assignments. Although the sector could be a major source of mass employment and there is an abundance of labour force at its disposal, the job suitability of the labour leaves much to be desired. Unfortunately the upgrading of requisite artisanal skills to raise productivity has not received sufficient attention. The available training facilities in the region are not adequate to make up the shortage of skills in most countries. This has resulted in the migration of trained manpower from the poorer countries to the more affluent ones, thus worsening an already grave position. An important area of development in the construction sector therefore is the provision of adequate training facilities for construction skills at all levels. While the emphasis of training requirements may vary from country to country, the area offers scope for co-operation at the subregional level.

Finance

49. Financial requirements for construction operations in the region range from procurement needs of machinery, equipment and materials, to wage payment, consultancy services and even basic tendering regulations. Thus, an usual feature of construction operations is the financial priming. In most African countries since contractors are paid according to the work completed, a primary responsibility rests on the operator to provide the initial funding. Thus even if the client could assist in providing the financial priming to initiate the project, the contractor will need sufficient capital resources to bridge the period between commencement and completion. Barring large firms and affluent contractors, most contractors are greatly handicapped in this respect.

50. Needless to mention, the contractors also encounter financial difficulties through such practices as instalment payments and the withholding of "retainers fees" as a guarantee against poor workmanship. In certain countries, contractors have to deposit a certain percentage of the estimated value of the projects when tendering. They do not get the needed assistance from most creditors. For example, building materials dealers are often unwilling to provide even short term credit facilities to contractors. Most African countries have no financial institution meant specifically to assist the construction sector. Commercial banks are reluctant to deal with most contractors due to the lack of collateral. Even where such facilities are offered, interest rates are high and repayment periods short.

51. African governments must seriously explore the possibilities for innovative schemes and means to provide adequate finance to the construction sector. Establishment of national construction banks, the creation of revolving funds jointly by contractors and governments and reducing the level of retainers fees could be very positive approaches to solve the financial problem of the sector.

52. Solutions to the financial problem could also involve regional co operation whereby African Governments could pool their resources to establish a financial institution or a fund for the purpose. The SHELTER AFRIQUE programme, promoted by the African Development Bank, for example, is a healthy move in that direction.

53. Ethics and Code of Conduct on the part of contractors, sound and firm financial control, and efficiency in the management of constructions are some of the means within the control of the construction sector to strengthen itself.

CONCLUSION

54. It will be clear from the foregoing presentation that the reformation of the construction sector requires major developmental initiative and actions not only from the sector itself but also from the governments.

55. The primary impetus for the development of the sector will be needed at the national level. African Governments must therefore assign, in their overall economies, a basic role for the construction sector and accord high priority for the development of building materials and construction services. As part of this strategy, they must formulate special and innovative policies and introduce matching promotional measures to enable the sector to reorganize itself with increased and improved capabilities for meeting the construction demands of the national economy as a whole, quantitatively as well as qualitatively. Along with policy measures

institutional support is vital for the growth of the sector. In particular, construction demand planning on a comprehensive basis, financial assistance, skills development and training and building and building materials research should receive special attention in this regard.

56. As a permanent catalyst for fostering the growth of the sector, the creation of "nodal mechanisms" at national level and of 'Building Materials and Construction Industries Development Councils at subregional level is recommended. It should be the task of these two mechanisms to assist governments in the planning of the development of the various components of the construction sector taking into account the sector-wise construction needs of the country and in the formulation and execution of appropriate projects.

57. A comprehensive development programme for the construction sector must therefore be drawn up covering, besides policies and promotional aspects, raw materials processing and supply, building materials production and supply, management and operational skills pertaining to building materials production and construction services, technology development and infrastructure relating to transport and vocational training, etc.

58. As a first step, construction demand planning on a long term perspective of say 20-25 years must be undertaken by the governments on the basis of a practical assessment of the various sectoral plans and needs of the economy and the needs of construction arising from these needs. The construction sector should be notified of the totality of the demand and assisted in drawing up its own development programme in terms of the various components and implementing it.

59. The development programme will have elements which will require impetus or assistance at the subregional and the regional levels as for example, large scale development of raw materials or building materials, skills and manpower training, building and building materials research and information services etc. Effective inter-African co-operation arrangements will need to be explored and organized for the implementation of such programme elements.

60. At the regional level, there is great need and scope for assisting the African countries in the formulation and implementation of co-ordinated programmes for the development of the construction sector. Much useful work has already been done in this direction by the Economic Commission for Africa through its Building Materials and Construction Industries Development Programme. Apart from the efforts towards promoting the creation of physical facilities for increased building materials production and for building and building materials research, it has enabled the African Governments to re-determine their priorities for the development of the sector. The programme with its emphasis on a comprehensive approach and a developmental strategy which covers the individual elements of the building materials and construction industries has made a favourable impact in many countries and has led to positive actions at the national, subregional and regional levels. There is need for continuing the programme on the basis of new dimensions of activities in accordance with the priorities of the countries in order to strengthen the national efforts towards speedy achievement of self-sufficiency in the construction sector.

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SPATIAL PLANNING WITHIN THE FRAMEWORK OF THE MONROVIA STRATEGY FOR THE ECONOMIC DEVELOPMENT OF AFRICA

Summary

1. In this document, the secretariat of the Economic Commission for Africa analyses the spatial implications of the implementation of the Lagos Plan of Action and submits for the Committee's careful consideration, some preliminary reflexions on human settlements policies, strategies and programmes to be adopted within the framework of the implementation of this Plan which is a follow up of the Monrovia Strategy for an endogenous, self-sustaining and self reliant development of the African region.

2. This strategy stresses the adoption of an integrated approach to the various economic and social activities, considering the inter-dependence of these activities. The strategy further emphasizes that the two sectors which would play a leading role and facilitate the attainment of these objectives are the food and agricultural production sector, on the one hand, and the industrial production sector, on the other. Indeed these two sectors are considered as sectors which would, through multiplying effects, have linkages with the rest of the economy.

3. Furthermore, it is emphasized in the strategy that the development envisaged is a wider process than a mere increase in the GNP, since it is intended to lead to an improvement in the quality of life of the majority of the people through equitable distribution of the fruits of development among all the social strata, all the regions of the countries and throughout the whole continent.

4. As stated in the Revised Framework of Principles for the implementation of the New International Economic Order in Africa 1/, which constituted one of the elements of the reflexion that led the African Leaders to define a new development strategy for Africa, a well conceived plan must be based on data other than only economic parameters and aggregates. "Among the many dimensions that are now due for recognition is the spatial structure of the socio-economic system. Regional (or subnational) planning which takes full account of the spatial aspect of planning (including the development of growth poles and their integration with the rest of the economy) is of particular importance for integrated rural development and for policies of planned urbanization."

5. It is also clearly stated in the Monrovia Strategy that the spatial dimension forms an important component of the decisions to be taken with regard to economic and social development plans and policies.

6. Hence, it is an essential factor for the formulation of economic and social development plans for the realization of the Lagos Plan of Action.

7. There is the need to define, first of all which strategies and human settlements programmes and policies should be formulated within the framework of the Lagos Plan of Action, taking into account national conditions and the regional context.

1/ E/CN.14/ECO/90/Rev.3, para 211.

8. The vital role that human settlements policies must play both at the national and regional levels cannot be overemphasized. This is the reason behind the submission of this document by the secretariat to the Committee, the document supplements document E/CN.14/HUS/32 entitled "Human Settlements and Regional Economic Development", document E/CN.14/HUS/43 entitled "Human Settlements and the African Development Strategy", and document E/CN.14/HUS/49 entitled "Regional Policy on Human Settlements in Africa" which were presented at previous meetings.

9. The Committee is requested to define the programme of work that should be implemented as well as the modalities of implementation and to draw up a regional plan of action in support of the recommendations of the national policies.

10. It is suggested that as a first step studies should be conducted in some selected countries and, then as a second step an analysis of the regional situation with respect to the priority objectives of the Lagos Plan of Action would be undertaken using the available national data. Experts who would meet in working groups or technical study committees would, on the basis of the available data then formulate recommendations to be considered by the Committee with a view to adopting a regional policy and recommending national policies.

I. Introduction

11. The report of the Monrovia colloquium on the development prospects of Africa through the year 2000 organized jointly by [illegible] in 1979, defined the various possible types of development for the African Region. The Extraordinary Summit of Heads of State and government held in Lagos, Nigeria, in 1980, considered the implications and modalities for the implementation of the model of development adopted at the Monrovia Colloquium.

12. The main objective of the Lagos Summit was to formulate the guiding principles for translating the Monrovia Strategy for the economic development of Africa into concrete action. The overall guiding principles contained in the Lagos Plan of Action may be summed up as follows:

(i) The economic development and growth of the African region should be based on the fundamental principle of collective self-reliance with the view to improving the standard of living of the urban and rural population.

(ii) The endogenous and autonomous nature of this model of development and growth calls for an integrated approach to the various economic and social activities, considering the inter-dependence of these activities.

(iii) Among the various economic activities, an absolute priority should be accorded to agriculture in order to ensure self-sufficiency in food for the total population.

(iv) Agricultural development should condition and promote industrial development and production, energy policies, communications networks, transportation and inter-African trade, training programmes, choice of technologies, protection and improvement of the environment and the setting up of suitable institutions at all levels to promote inter-African co-operation for the mobilization of the required financial and material resources.

13. The Monrovia Strategy for the development of Africa and the Lagos Plan of Action have defined an economic doctrine and the modalities and conditions for its implementation. This doctrine is based on a planning approach which integrates all the economic sectors for an autonomous and endogenous development. However, the formulation of this doctrine is not restricted to a disconnected economic abstraction of the geographical framework within which it should be realized.

14. The main objective of this document therefore is to explain the spatial implications of the implementation of the model of economic development set out in the Lagos Plan of Action. In other words, it is a study on the implications of the application of the principles of the Lagos Plan of Action on the morphology of the geographical area of the African continent.

15. To study these implications means adopting, as far as methodology is concerned, a dialectical approach which determines the organizational pattern of the document. This document is therefore divided into three parts: part one covers a theoretical study of the relation between economic planning and spatial planning in Africa. Part two presents an analysis of the structure of the African geographical area based on a study of the historical conditions which dictated its present nature. Finally, part three deals with the definition of a [illegible] policy for spatial planning in Africa in view of the type of economic development endorsed by the Monrovia declaration and the Lagos Plan of Action.

II. The relation between Economic Planning and Spatial Planning in Africa

16. The Monrovia Strategy for the economic development of Africa has fixed comprehensive objectives that all the States of the region should, as of necessity, attain. It is therefore incumbent on each State (or group of States) to organize with sovereign power, its development so as to achieve these economic objectives; however, the achievement of these objectives implies, as a matter of necessity, the formulation of a physical planning policy.

17. Nevertheless, although most of the governments of the region have acknowledged the need for planning their economies, only a few of them have correspondingly formulated national physical plans which incorporate considerations for the harmonious location of the economic activities. Evidently, the models of economic development so far adopted by most of the States have made the formulation of a coherent physical planning policy almost a useless exercise.

18. Indeed, these models of development and growth have been characterized almost everywhere by a type of foreign oriented economy, made a satellite in relation to the centre of world economic decision-making, represented by the developed world. So far we have simply been illustrating the economic theory of the 'centre and periphery' propounded by some contemporary African economists. In this context, almost all the African national economies were, and are still, dependent on the economic structures of the developed countries. These developed countries therefore control the powers to decide and direct the development of the African States.

19. In this regard, each time the African States have formulated economic and social development plans, the achievement of the sectoral objectives of these plans has remained dependent, more or less, on the massive intervention of the developed countries, given the dependence of African countries on the World economy. The development plans thus formulated have, very often appeared like catalogues of desires whose achievement depends to a large extent on the interests and the support of developed countries.

20. From then on, the problem becomes simple. On one hand, there are the African States which draw up development plans and arrange their activities in accordance with a certain will for developing their territory. On the other hand, there are the developed countries which have to finance a large portion of the sectoral components of these development plans. Obviously, the developed countries, despite their philantropic statements on co-operation and development, are in fact only interested in the objective of achieving growth and expansion of their own economies. Consequently, they participate in the realisation of only the sectors of African plans that are profitable from the point of view of their own investments and in locational patterns which are more likely to ensure this profitability.

21. That is to say, the major consequence of the foreign oriented nature of the African economies in relation to those of the developed countries is the break between economic planning, on the one hand, and spatial planning, on the other. In other words, the coherence and the complementarity between economic planning and physical planning necessarily presuppose an autonomous decision-making capability of each State, independence and freedom of choice of financing, and a type of autonomous and endogenous development.

22. This is precisely because the Plan of Action for the implementation of the Monrovia Strategy for the development of Africa has emphasized, as a prerequisite, the existence of an endogenous and autonomous economy. Thus it is necessary to re-define the conditions and the modalities for integrating physical planning into economic development plans.

23. The aim of this study is therefore to indicate precisely how far and to what extent the organization of space in Africa fits in with the pursuit of a planning policy within the context of the development model adopted in the Lagos Plan of Action. Most of the States in the region are still far from endorsing and accepting the complementarity between the two systems of planning.

24. Generally physical planning may be defined as the search, within a given geographical context, for a harmonious distribution of men in relation to the natural resources and economic activities. That is to say, the whole discipline is based essentially on the notions of location and balance. Basically, it can be said that physical planning is not linked to any doctrine or political ideology. However, it can be said that physical planning can be operational only in the States where the intervention of the Government in the economic and social life is well accepted.

25. Economic planning fixes the objectives to be attained; however these objectives should find relevance at the local level and in the geographical space. It is therefore in terms of development activities that the variable of location comes into play. This means that physical planning rates second to econometric planning. Taking account of the locational factor generally adds to the unit cost of an establishment calculated on the basis of only the variables of econometric statistics. In other words, the change from sectoral planning to spatial planning often entails an increase in investments over a short period of time. However, as we shall see in the next chapters, this additional burden is negligible in relation to the consequences of economic imbalances in matters of territorial development.

26. Some African governments maintain that a territorial development policy is a luxury they could not afford without sacrificing their immediate growth objectives at an appreciable cost. Physical planning to these same governments is only of a qualitative interest and not a priority in relation to the requisite needs for economic growth. In other words, according to these governments, emotional considerations of the well-being and growth of the population are secondary as far as the problems related to their survival are concerned. Admittedly, the basic principle of any territorial development policy is to consider man first and foremost as a human being and then as a producer. This means that through physical planning, the notion of the qualitative improvement of living conditions is integrated into the basic notions of economic and financial profitability.

27. Obviously, it is possible to consider physical planning as a luxury so long as development is still at a relatively early stage. In this case, it is a matter of dealing with relatively restricted economic areas where basic human settlements are located for the population engaged in limited economic activities which may be described as "natural". Under such conditions, there is no disastrous break between geographic space and the life style of the people. These people who adapt themselves to their surroundings survive in such quasi-natural micro-environment in a harmonious and balanced manner.

28. It is certain that at present, these modes of life no longer exist in a pure form any where. The establishment of major political and economic institutions and the adoption of new methods of large-scale production, have disturbed the balance and the geographical harmony in which the economic activities have been organized. Consequently, just as the organization of the large-scale economic production led to national economic planning, the breakdown of balance between populations and the "environment" demands a recourse to physical planning.

29. At the present stage of economic development in the region, no State can therefore escape the urgent requirements of physical planning. Moreover, any economic planning exercise which does not integrate the variables of location can only be considered as presenting the picture of a body without the skeleton.

30. Once the imperative nature of physical planning is accepted, the modalities of its formulation and implementation, given the exigencies of the model of economic development in Africa adopted in the Monrovia declaration and the Lagos Plan of Action can then be analyzed. This analysis is based firstly, on an examination of the changes that have taken place within the African geographical space taking into consideration the models of development that have been applied so far. Then in a sectoral study of the objectives of the Monrovia Declaration and the Lagos Plan of Action, the spatial implications and the requirements of the development of the African region will be defined.

III Consequences of the colonial and post-colonial mode of production on the development of the African geographical space

31. In the older developed countries, geo economic areas were first organized on the basis of a high yield agricultural economy then there were the central points of production and organization which constituted genuine poles around which economic relations developed and this finally led to national territorial planning. These development poles are the cities. Urbanization is therefore an old phenomenon in the older developed countries, where it was achieved slowly and progressively in consonance with the various technical revolutions.

32. The effects of alienation resulting from urbanization have been progressively brought under control resulting in a continuing adaptation of the planning of the national physical space to the effects of the mode of production and the models of economic development. It can therefore be said that the cities of the developed countries have been relatively well integrated with their hinterland with which they maintain relations of functional complementarity. These cities have their own dynamism and maintain among themselves balanced relations of co operation and trade facilitated by the existence of a coherent and integral communication network. Therefore in these cities unitl quite recently the development of the national space had taken place in a coherent and harmonized manner.

33. Undoubtedly, since the major industrial revolution and considering the spectacular development of technologies linked to scientific advancement the structuring of the geographical space of these countries has experienced alarming imbalances and dislocations. The most striking consequences of this have been the management costs of the major metropolis which are developing into conurbations and negative effects on the environment.

34. However, the possibilities of State intervention and control in these developed countries give support to the expectation of a reversal of this trend towards a new and voluntary balance. These possibilities of intervention are political, legislative and especially financial, technical and scientific in nature.

35. The African continent has been spatially structured on the basis of a historically different socio-economic process and the African urban phenomenon is also very unique and quite complex.

36. With the exception of some pre-colonial cities most of which have not survived the contemporary modes of production, almost all the present cities in Africa were built during the colonial era. The African urban phenomenon which is a major determinant of the structuring of the regional space is therefore characterized everywhere by a colonial tie, hence a relationship of political and economic domination.

37. It is within this context of the domination of a society by another society, the latter dictating the mode of production of the former, that African economic and geographical space was organized and structured. The characteristics of the continent's spatial morphology are therefore explained by the development pattern imposed on African countries by their European colonizers.

38. For instance before colonization the production activities of African societies were based mainly on a subsistence economy characterized by balance between production and consumption. The low level of production was a direct consequence of the low level of technology and the low population densities. Even though since the 10th century the development of commercial trade routes between the interior of the African continent and the northern and eastern coasts, as well as the existence of great empires and kingdoms favoured the birth of commercial and administrative centres most of which had large areas of influence, it can be said that the distribution of population and activities occurred under conditions of balance, an embryonic trade network organized, more or less, according to the effects of circumstantial forces and natural factors. At this stage of development there was no noticeable imbalance in the surrounding space between the populations and their economic activities. This phenomenon, though a general one, has some local characteristics.

39. With colonization the orientation changed radically in that vast spaces had to be controlled, administered and exploited: hence, the need for urban infrastructure and the creation from scratch of a network of agglomerations to be used as a basis for organizing this exploitation.

40. The process of exploitation is well known. The colonizers replaced the subsistence crops produced by the traditional societies with cash crops (export crops) at more remunerative prices. The virtually exclusive production of export crops at the expense of large scale food crop production led to the first real break between the production and consumption. As a result foodstuffs had to be imported under the exclusive control of the colonizing countries to feed the African people.

41. In this context, the specific role of almost all the African cities was to serve as a depot and distribution centre. The African city served as a collection point for agricultural produce from the hinterland for export. At the same time it played the role of a distributor of goods manufactured in the countries of the colonizers.

42. It is therefore not mere coincidence that all the large African agglomerations are harbour cities which play an important intermediate role in the world economy.

According to this same logic about this type of economy the African cities which were not ports were generally situated at transfer points such as meeting points of waterways and railways, roads and waterways, railways and roads. Moreover the lines of all communication networks and the configuration of urban lay-outs everywhere testify to the dominant relationship existing between the African region and the colonizing countries of Europe.

43. Thus, unlike what happened in the cities of developed countries whose role had evolved over the centuries, the African urban economy has not experienced any changes from the primary sector to the secondary and then the tertiary sectors. African cities therefore have no economic impact over their hinterlands which they control only administratively. This special characteristic of urbanization in Africa and, consequently, of the structuring of space was systematically arranged by the European countries, especially shortly after the second World War, between 1945 and 1955. This period was marked especially by the desire of the colonizing countries to control both the people and the territories under their dependence. Ports gradually became important in the territories where exports of raw materials (agricultural and mineral) played a vital economic role. This situation encouraged migration from the rural areas which caused great increases in urban populations.

44. With the exception of a few special cases, the colonial administration was concentrated primarily in the capitals of the countries and this attracted most of the investments to these capitals. Apart from these national capitals, the district capitals played only a basic administrative role aimed at ensuring colonial order in the territory. Consequently there is almost everywhere, a type of urbanization characterized by the proliferation of one or two large towns inhabited by between 30 and 60 per cent of the country's population, where almost all the investments are concentrated and which account for more than half of the GNP.

45. Soon after independence, most governments, aware of the need to create nations united within defined borders of their States, introduced very centralized authorities which did not allow for any form of deconcentration or regional and local decentralization. These governments, forced by circumstances, therefore strengthened de facto the trend towards imbalance in the spatial development of their territory. As a result of the constant improvement in the transportation networks and also because of the ever growing concentration of decision-making powers in the capitals, the large cities continued to extend their zone of influence and in time could do without the intermediary role played until then by the secondary centres. The secondary centres therefore gradually lost control of their hinterland. Their activities reduced or declined, reduction in commercial activities slowing down in construction work, exodus of the rural population to the capitals, gradual reduction in population growth and reduction in employment potential.

46. Since independent African States had generally maintained and even strengthened the development system inherited from their colonial masters, the real choice and control of their own development pattern was, in fact, foreign to them. Therefore, as we have explained earlier since the foreign oriented nature of the African economies had been strengthened, decisions regarding physical planning in these States were very often taken in developed countries.

47. Consequently both at the national and regional levels, physical planning or the lack of physical planning is strongly characterized by serious imbalances, namely:

(i) Imbalance in the lay-out of towns where well developed areas and slums co-exist under conflicting relations;

(ii) Imbalance in the urban hierarchy where the dominant capitals do not allow for the growth of any other balanced metropolis;

(iii) Imbalance in the urban/rural relations marked by discriminatory development of communication networks and by the insufficient remuneration for agricultural labour as compared to salaried employment offered in urban areas.

(iv) Population imbalance as evidenced by the reduction in rural population caused by a constant rural exodus which contributes to the over population of the urban areas;

(v) Imbalance in the economic patterns in a situation where a traditional type of production and consumption conflict with a modern one entirely foreign oriented and dependent on the economy of rich countries;

(vi) Inter-zonal imbalance between regions naturally well endowed and the less advantaged regions; and lastly

(vii) General imbalance among the various countries of the region, between the subregional zones (for example the Sahel and the forest zone), between cash crop cultivation and subsistance farming, between foreign oriented economies and endogenous and self-sustained development, and between landlocked and coastal countries.

48. In conclusion, all these imbalances inherent in the pattern of foreign oriented development and economic growth practised **hitherto** in Africa can be corrected only through a radical change in the mode of economic development and the adoption of an endogenous and self sustained development system. The Monrovia Strategy for the economic development of Africa offers an excellent opportunity for a new approach to spatial planning. We can now begin to reflect on the conditions and modalities of this new methodology of physical planning.

IV. The main elements of physical planning for spatial restructuring in Africa based on the development objectives of the Monrovia Declaration and the Lagos Plan of Action

1 Physical planning and agricultural development

49. The traditional model of organizing agriculture in Africa depends generally on the ancestral community. This community, a true basic social nucleus constitutes some kind of a self-sufficient unit of production distribution and consumption on a community basis structured on a type of social organization based on the notion of age. The technical model of production adopted in this context to ensure the survival of the family group is very basic. It is based on a temporary and extensive exploitation of the land cleared systematically through techniques of bush burning. Production techniques are rudimentary, dealing with food crop farming which does not require any means of production other than labour and hand tools and is characterized by shifting cultivation practices. Animal rearing, whether undertaken by the farmers

or specialized breeders, is always intensive and basically distinct from vegetable production. The land scenery resulting from this type of agriculture is a little humane and despite everything, it meets the needs of the people. Consequently, the productivity of labour, land and livestock is extremely low and generally is stagnant, with marked seasonal variations.

50. Contact with the colonial economy led to a substantial change in the traditional techno-economic system. The introduction of cash crop production meant for the international market resulted in a break in the traditional arrangement based on self-sufficiency in food and some limited trade. Alongside food production, an exclusively foreign oriented trade sector sprang up in the majority of the production areas; this created a dualism in the rural economy. This dualism has itself created a spatial imbalance between the regions affected by the development of export crop farming and the other regions. In such a system linked to the world economy, rural spatial development was planned exclusively for the benefit of the first category of regions.

51. Following the gradual commercialization of the agricultural economy, traditional agricultural structures have lost their initial economic and social role. Even after independence the production of new crops was quickly introduced under foreign pressure and these crops were cultivated on often insufficiently prepared land. On the whole the new agricultural farms were developed mostly within the framework of the traditional technology without the introduction any major technical innovation. The new production activities were somewhat absorbed into the world of traditional technique.

52. Consequently, although the model of spatial organization has been modified and labour productivity has increased overall at times, the hourly or daily productivity expressed in terms of foodstuff has often fallen. Production has increased in terms of the area covered but not through the intensification of cultivated areas. The advent of monetary income has brought about the consumption of new types of food without the accompanying accumulation of capital since productivity was limited by continued use of traditional technology.

53. The former society constituted an integrated system based on a coherent social and spatial organizational pattern. The present African rural society is undergoing a complete evolution in search for a new coherence. With the new trend we are confronted with a "pioneer" and "mining" agriculture which consumes space and destroys land but is not sectorally integrated this is because it is based on the induced effects of a foreign oriented economic network which benefits only a fraction of the agricultural activities.

54. We therefore understand why Africa despite its enormous agricultural potential cannot be self sufficient in food. Although the economy of the majority of the States depends essentially on agriculture which absorbs between 70 and 80 per cent of the total active population represents about 40 per cent of the GDP and 60 per cent of the foreign trade (excluding oil) Africa remains a continent where the great majority of the people are underfed.

55. Under such conditions, it is easy to understand why the main objective of the Monrovia Declaration is food self-sufficiency within the framework of an autonomous and self sustained agriculture which is not influenced by deteriorations in the conditions of trade. Physical planning aimed at ensuring the successful realization of this objective should, therefore be based on a new strategy for specific actions.

56. It is not necessary to undertake a detailed examination of the various recommendations of the Monrovia Declaration. It is possible, however to suggest major physical planning orientations within the scope of the new agricultural development objectives which given the diversity of the local situation and the subregional agrarian peculiarities, will only be indicative of what could be done.

57. The most elementary unit of physical planning in relation to agriculture should be the village because food crop farming should of necessity come under the control and direct monopoly of rural societies organized at the level of the village and family agricultural production. Once this necessary factor is accepted, the primary objective of spatial planning would be to resolve the issue of the optimization of the use of land. The approach which allows for the means and factors of production (especially land) to be placed at the disposal of the peasants individually or collectively has so far offered the best conditions for land development.

58. Advances in cultivation techniques implies fixing the location of housing and cultivated lands to permit their development and the acquisition of landed capital. The application of modern crop protection methods calls increasingly for geographical concentration of crop types. This concentration has many technical and economic advantages because it enhances the mechanization of operations at a minimum cost and enables several farmers to do their work simultaneously and jointly. It also makes it possible to improve productivity through large scale development projects (construction of structures to check erosion, establishment of irrigation and drainage networks etc..)

59. Physical planning of localities must lead to the introduction of crop rotation and techniques likely to increase soil fertility as well as the adoption of technical crop production systems and shifting cultivation. A prerequsite of this type of land restructuring is obviously an inventory of the soil types and the evaluation of their productive capacity which will make it possible to draw up the rural plan to be used for land reallocation.

60. The development of rural agricultural land must aim at harmonizing the various components of the agricultural structure. Agriculture, livestock breeding and fishing must therefore be integrated into a network of complementarity. For example, the introduction of livestock feed into the system of cultivation creates a functional relationship between livestock production and agricultural production. This complementarity also implies a planned integration of the various rural networks namely wind-break networks, fire belt networks and transhumance.

61. The rural lands thus developed must be concentrated around human settlements which must also be developed taking into account the major agricultural activities. The rural settlements taken as a whole can then have functional hierarchical relationships from the village to the big cities passing through the small and secondary towns which are capable of playing the role of big cities.

62. Once physical planning has been completed at the local level, groups of localities can then be planned on a zonal or even global basis. It is at this stage that the questions of management of water, forest, environment in general, removal of enclaves, etc. can be tackled effectively.

63. The water problem should be recognized as the most important aspect of physical planning in rural areas. It is a fact that the first major ventures dealing with the organization of spaces had river basins as their framework. Two reasons account for this: firstly, the multiplicity of the desired objectives, namely water control and flood reduction, improvement of navigability, agricultural development (through irrigation) and industrial development (power supply). Secondly, the global nature of the operations (since constructional works have value only if viewed within a global context). It is obvious, therefore, that countries within the catchment area of a river are united with regard to all aspects of the water problems. Thus, the river is not only an instrument for the unification of phenomena but also a factor in the assemblying of groups of people.

64. At the level of small territorial and micro-development units, the river can create an interdependence which calls for the integration of planning programmes. The exploitation of water resources requires close co ordination of work between countries located in the basin so as to determine the trade patterns that should be established between the various levels of human settlements.

65. Water problems are varied and this explains their complex nature: judicious use of the available water, protection, evacuation, pollution etc... and more significantly the frailty of the equilibrium established by nature. Endowed with a power of destruction comparable to its power of regeneration, water is basically ambivalent. Besides, it is impossible to divorce technological elements from economic and social elements. The foregoing underscores the importance of the work that should be done in respect of the water cycle and its various climatic, hydrogeological and biological aspects. In brief, taking account of all these aspects constitutes the basis of genuine physical planning.

66. Physical planning of forest resources and environmental protection is a substantive issue and will be treated in a special chapter in relation with aspects of the physical planning of industrial resources.

67. In conclusion the search for food self sufficiency within the framework of an autonomous and self sustaining economic development model must of necessity take into account the judicious use of space and its resources. Physical planning must encourage the introduction of geographical rationality in the calculation of costs and quantitative evaluation of agricultural production.

68. The priority accorded to agricultural production presupposes a more systematic use of such factors of production as improved seeds, fertilizers, crop protection products, agricultural implements, animal-drawn equipment, mechanization, power etc.. This would make it possible to develop agro industrial production activities. Such industrialization also constitutes a fundamental focal point of physical planning.

2. Physical planning and industrial development

69. The Monrovia Declaration and the Lagos Plan of Action for the economic development of Africa recommend that all the sectoral aspects of the economy should be integrated together into a set of relationships based on complementarity. This integration which

is essential makes it imperative to analyze, first of all, industrial development in relation to agricultural development and then the specific autonomous aspects of industrial development.

70. Agricultural development leads to the creation of industries. Increased agricultural productivity is linked to the existence of an industrial base which cannot be laid without financing from mobilized agricultural surplus and outlets provided, at least partly, by a changing agricultural system. The first problem, therefore, is to increase and mobilize agricultural surplus and use it effectively to create industries.

71. Thus the planner cannot consider either agriculture or industry in isolation. He should aim at developing agro industries based on agricultural production. Thus the agricultural development policy integrated into the industrial development policy will not consist in merely popularizing new techniques or increasing the production objectives. It must lead to an agricultural revolution resulting from the introduction of agro industrial activities within the framework of the modification of rural technology. This implies the adoption of a new development pattern.

72. The role of industrial units is essential at this level for spatial organization. Agro industrial complexes should be established around dynamic industrial units. There can be no real agricultural development without the use of new industrial factors of production created by backward linkage industries and the use of agricultural raw materials by packing and processing units in a forward-linkage process. This is how the concept of inter-sectoral integration recommended in the Monrovia Declaration should be applied.

73. Backward-linkage industries must be directly linked to basic industries such as engineering, iron and steel industries (production of agricultural implements), chemical industries (agricultural chemicals, crop protection products), cement factories (irrigation canals, etc.). These are generally large industries likely to have strong linkages in the total economy. They are very often national or multi-national in character. Some backward linkage industries (agricultural implements and livestock feed industries) and small forward linkage industries (textiles and food industries) must be developed locally and be linked directly to the establishment of secondary urban centres capable of playing the balancing role of big cities. These industries can play an important role in the development of agricultural surplus and can direct the organization of trade networks and flows.

74. Indeed, there is need to create strong centres, whose activities will be the driving force behind the creation of linkages through the development of trade flows or exchange of information which will encourage innovation. Thus, the centres for applied research, linked functionally to an effective vocational and techno-economic information dissemination network should, by virtue of their nature, be the active centres needed for agricultural and industrial development.

75. Industrialization must be viewed in the context of the location of production units and regional economic activities. Harmonization errors result in adverse imbalances in every respect and are very costly in the short run. Badly planned industrialization only distorts the harmony of the countryside.

76. Although the best "economic" location of an industrial unit is that location which minimizes production costs, it is equally true that the analysis of production cost must take account of unquantifiable induced costs directly linked to the social advantages and disadvantages of a given location.

77. The preparation of a physical plan to stimulate industrialization in a given region should not only involve a consideration of the price structure but also include an analysis of the future of the region as a whole in relation to other existing development poles. Physical planning cannot therefore, at this stage, be restricted to capitalist concepts because of the natural and logical tendency of making the community pay for social costs.

78. The industrialization of disadvantaged areas however presents its own difficulties: inadequate infrastructure, shortage of skilled manpower, etc. From the point of view of the private investor, such areas are not attractive. It is clear therefore that urban concentrations which have a certain minimum of facilities are generally more competitive as far as industrial location is concerned. This means that governments must gradually take over from private investors in order to provide opportunities in the disadvantaged regions. The action of governments can be direct (overall financing of investments) or indirect (incentive for decentralization through a policy of offering various advantages: tax exemption, price guarantees, protection of a guaranteed market, etc.).

79. Obviously, by virtue of their special characteristics, some industries such as the mining industry have predetermined geographical locations. However, technological progress is increasingly making it possible to overcome this serious situation of physical determinism. Prominent among these technical possibilities are various types of transport and communications system which will be treated in the next chapter.

80. The main criticism that can be levelled against the industrialization policy of African countries from the point of view of physical planning is that this industrialization is characterized by an unequal geographical distribution of industrial units and consequently the resultant trade flows. As a result of this situation, dominant and subordinate spaces have emerged over the national territories. Further, these industries are generally foreign oriented and are therefore ineffective with regard to economic effects on the hinterland.

81. Industrialization as outlined in the Monrovia Declaration should aim at ensuring economic independence. The economy of African countries should cease to be subjected to the commercial interests of the big powers. In this connexion, the search for solidarity and complementarity among the States should be a guiding principle in the choice of the nature, the size, type and location of industries. It is only this regional approach that can promote inter-African trade which is a prerequisite for initiating a "South-South dialogue".

82. All industrial units to be established in this context should centre around a local growth pole resulting from spatial analysis and the socio-economic units should be organized according to a global and coherent development and industrialization programme. Finally, the planning of the industrial structure should be linked with territorial development. Indeed, the growth and development of a country and its people can be achieved only through a conscious development of the means of propagating the effects of development poles. These are coherent structures which transform chaotic developments into orderly development.

83. However the search for complementarity among States should take into account the production ties, the problems of competition of the units, the real and potential areas of consumption, etc. Still these also call for the harmonization of customs fiscal and standardization policies as well as the planning of human resources (training and immigration policies). The countries concerned should show a strong and constant desire to achieve a regional integration of the African economies. This integration will be possible only through the establishment of an operational communication network. The establishment and the development of such a network is also a vital aspect of physical planning.

3. Physical planning and communications and transportation networks

84. Communications facilities and especially the functional analysis of the various networks constitute one of the vital instruments of physical planning. However in view of the establishment of the Transport and Communications Decade by the United Nations and the scientific and technical studies carried out under the auspices of ECA in connexion with this Decade, the question of communications and transport will be discussed only briefly. The main point is therefore to stress again the importance of these networks in spatial planning.

85. The negative influence of the concentration of hypertronic development in African cities on the various communication networks has already been dealt with in the first part of this document. In almost all the African States, the communications networks have been constructed to suit the immediate needs of the capital which is the headquarters of a foreign oriented economy to the detriment of the rest of the country which is subjected to a neo colonial type of agriculture. The deterioration of the terms of trade brought about by this situation worsens the already poor conditions in the rural areas and further encourages the influx of the rural youth into the cities.

86. Communications networks constructed in such an economic context which does not allow for any autonomous local development, cannot obviously serve as the genuine basis for physical planning which should first and foremost ensure a balanced development of all the micro spaces which consticuce the different national territories.

87. The development of communications networks is therefore always considered under two aspects which appear contradictory and ambivalent. It can, in fact, aggravate the already existing imbalances between natural and economic regions but it can also serve as the basis of a genuine physical planning for a harmonious interregional balance.

88. Communications networks can play this beneficial role thanks to the tremendous progress made in less than a century in techniques for public works. In view of this progress, the locational constraints associated with the existence or lack of raw materials in a given locality are, in fact, no longer an imperative locational factor and the improvements made in the fields of transportation and packaging of products as well as their increasing interchangeability have given rise to various possibilities of locating economic activities.

89. It can therefore be asserted that spatial development depends less on the end use of space for agricultural or industrial purposes than on the development of communications facilities. Indeed the concepts of flow and mobility are so closely linked with space that considerations of distance converted into distance-time carry greater weight than those relating to the location of a given economic activity.

90. This is why disenclavement occupies a prominent position in spatial planning especially at two extreme levels: the level of the backward areas where trade is in its embryonic state and the level of more developed areas where competition between economic activities is largely dictated by the efficient transportation and communication networks.

91. Problems posed by the unequal fluidity of space are therefore of great importance. Looking at the situation from the point of view of the economic development of the backward areas, it would be observed that government intervention should be a determining factor as regards the establishment and utilization of communications infrastructures. These types of governmental actions are discriminatory and selective acts of sovereignty. They are therefore political decisions as well as choices for national spatial planning.

92. From the technical viewpoint communications networks can serve as a powerful tool for the physical planning of areas which are already relatively developed. Actual distance is not merely what can be measured on the map - the concept of either distance/time or distance/cost which results from an in-depth study that takes account of the nature, destination and value of the object transported assumes greater importance than the notion of geographical distance. It is by actions discriminatorily on this notion of distance-cost that the State assumes its prerogatives as a planner.

93. Since the effect of spatial polarization varies depending on the various modes of transportation, governments should in the exercise of their prerogatives in the field of planning, direct their action to a comparative cost benefit analysis of these various modes of transportation. Indeed every transportation mode has its own characteristics, namely capacity, speed, cost etc. whose study depends on the traffic flow patterns and therefore cannot be treated here. Development planners must carefully weigh the advantages and disadvantages of the various transportation modes bearing in mind the inter zonal balances to be considered in planning the various economic activities.

94. However, as an eminent planner has noted, it is difficult, if not dangerous to define the advantages and disadvantages of each mode of transport in absolute terms because any traffic or communication problem is an equation with many variables and unknowns. However, assuming that comparisons can be made on the basis of some given "average" data, either physical, economic or political, it seems that spatial planning experts would agree that:

(i) The sea or inland waterways are particularly suitable for transporting heavy goods of little unit value (dispatch of raw mineral resources and taking delivery of unprocessed raw materials;

(ii) Rail transport is adapted to the movement of all kinds of goods over distances beyond 300 kilometres in areas in full economic bloom.

(iii) Air transport should be used to carry goods over distances beyond 1000 km and to handle high price items (spare parts and precision instruments and much needed perishable goods).

(iv) Road transport plays a very substantial local and regional role. The flexibility of its utilization permits door-to-door transportation and this is a great asset.

95. A last point to remember about inter-zonal transportation is the constant search for the means to ensure balance in trade flows. Indeed the imbalance of flow between one locality and another is not only upsetting from the technical and financial point of view because of empty return trips, but it also testifies to the existence of zonal tensions and disparities.

96. This overall analysis, though theoretical, should enable us to better understand the difficulties and the implications of the objectives of the Monrovia Declaration and the Lagos Plan of Action regarding transportation problems. To maintain the spirit of the Monrovia Declaration planners and agents of development should first of all, consider the following points:

(i) The need to develop intra African trade

(ii) The need to ensure complementarity of the economies of the different African countries

(iii) The need to integrate national networks into subregional and regional networks.

97. These considerations are obviously paramount among the concerns of those responsible for the Transport Decade, the Population Decade and the United Nations Conference on Trade and Development (UNCTAD). It is therefore unnecessary to analyse them in detail here. Suffice it to stress the primary importance of communications in the inter-sectoral relations of the different economic activities and especially its prominent position in human settlements planning since there is a close relationship between transport and communications networks and the distribution of population and activities.

4. Physical planning and urbanization

98. The historical evolution of the urban issue has already been dealt with in the first part of this study. It is therefore unnecessary to take up again a statistical study of urbanization in Africa. Besides this has already been the subject of a comprehensive study presented to the United Nations Conference on Human Settlements held in Vancouver, Canada. That Conference also examined in detail the modalities of the policies relating to habitat and housing, the fields which gave birth to physical planning.

99. Therefore, the urban question will be discussed only from the point of view of the vital role of cities in physical planning. There is need to restore to each city its polarizing role within the framework of the organization of the micro spaces of its hinterland. The primary objective of physical planning in Africa must therefore be to remove the adverse consequences arising from the tendency to polarize major cities.

100. The action of African planners must therefore be directed at city-countryside relationships. Indeed, the rate of urbanization which was below 10 per cent almost everywhere in 1950 increased in most of the countries, reaching or even exceeding 30 per cent. This was due to a rising birth rate and a considerable fall in death rate, coupled with a massive rural exodus. This growth in the urban areas was particularly due to the fact that some capitals had absorbed an average of 45 per cent of this growth.

101. There is a tendency to think that rural exodus is indicative of agricultural success which, changing from an extensive to an intensive system, provides the urban centres with additional rural manpower. In the chapter on agricultural development we saw that this interpretation is incompatible with reality. Rather, rural exodus almost everywhere shows the failure of the agricultural policies of the development models adopted by African countries. The contrast between the urban economy and the rural economy, based on the exploitation of the latter by the former, is the main cause of the exodus from rural areas.

102. It can therefore be said that in most of the African countries, the 'push factor' of the villages which are in constant poverty is greater than the 'pull factor' of the capitals where development activities have been concentrated. In other words, the exodus from the rural area is more the result of the 'repulsion' effect of the villages than the attraction effect of the cities.

103. African governments have tried, rather unsuccessfully to fight the rural exodus instead of addressing themselves to the root causes of the problem. It must be admitted that there can be no town planning without rural development within the framework of a new agricultural production system.

104. There is an obvious need to take up henceforth, the management and organization of towns without waiting for the effective implementation of this agricultural production system. The organization of towns falls under town planning which, in the final analysis, is nothing but physical planning at a micro-level. This question is already a major concern of the Intergovernmental Regional Committee on Human Settlements. The relevant programmes cover urban master plans, housing programmes integrated into building materials programmes, policies for the provision of facilities, green spaces, zoning of urban areas and environmental protection.

105. In view of the foregoing, there is a need to examine at this stage a methodology for planning the national territories using African cities as the basis. The main objective is to make all the cities poles of self-sustaining development as defined in the Monrovia Declaration and the Lagos Plan of Action. This means making each town of a given national territory a set of 'power units' with linkages in a clearly defined area in specific economic relations.

106. The aim of these 'development poles is to strengthen the 'power units' over the whole territory with a view to eliminating the effects of economic domination in favour of a global relationship based on functional complementarity. This strengthening of the 'power units' will depend on the implementation of a policy on the development of a hierarchy of towns. This hierarchy operates on the basis of the specialization of each city. Indeed, one can talk of the existence of a city only when its activities are likely to have an endogenous multiplying effect on the hinterland through the special function that it performs.

107. It can generally be said therefore that there can be no effective physical planning without the decentralization and strengthening of the powers of local communities. The Monrovia Declaration and the Lagos Plan of Action obviously provide an adequate framework for the implementation of such a decentralization policy based on an effective participation of the local populations in the development effort.

5. Physical planning and the environment

108. The Monrovia Declaration gives special attention to environmental matters. This interest is due to the fact that the protection and management of the environment command attention in all the sectoral aspects of economic development namely, agricultural development, industrial development, communications networks and urbanization.

109. However before considering the relationship between environmental management and the different economic sectors, it is necessary to analyze the reaction of African governments to theories relating to the environment. This analysis will aid an appreciation of the importance that ought to be attached to this issue so that it would be given some priority in development programmes.

110. There is a dialatic relationship between the state of a given environment and the level of development of societies living in that environment. From a strictly historical point of view, we can say that researchers began to think about the problem of the environment after realizing the adverse consequences of industrial pollution. Thus, in developed countries, growth no longer seemed to be the main objective of the econometrics of development. Added to this necessity is the need for improving the living conditions including working conditions and leisure. This is why theories on environmental protection are considered by decision-makers in Africa as minor preoccupations which do not deserve to be accorded priority whilst the very survival of African peoples is at stake.

111. At present, many African governments are of the opinion that anxiety about the environment stems from a new scientific preoccupation which is more needed by developed countries than those of the Third World but to consider environmental problems as a new hobby for the developed countries is to gamble dangerously with the future of developing countries. The debate should simply be viewed afresh in its true historical and socio economic context before taking definite conclusions.

112. Developed countries should find immediate solutions to the incidence of catastrophic destruction of their environment. Developing countries should, from now on work out protection measures in expectation of upheavals which the implementation of development patterns based on growth, inordinate search for profit and inconsiderate exploitation of natural resources will produce on their eco-systems.

113. The exploitation of natural resources should take account of what the nature of the environment will be in future. . . For their part, developed countries have opted for societies said to be consumer societies, that is to say societies which emphasize an apparent squandering of essential resources. They now have to deal with the consequences of the acts of aggression against nature, resulting from the socio economic development pattern they have chosen. The disruptions of their environment should serve as a lesson to African countries. The over developed world has to repair the damage done to nature whilst Africa should seek to prevent the damage that would be caused if the laws of nature are not respected.

114. This difference of approach is still to be commended when relationships between industrialization and environmental protection are examined. To illustrate how decision makers in developing countries view the problem, let us consider two statements which became popular during a United Nations Conference on the environment.

(1) All the developing countries have been warned about the risks they are running; but are ready to accept 1/100th of the total pollution of developed countries if only this would mean for them a diversification of their economy through industrialization. They should not be deceived by the urgent need for development and growth that there would be an atmosphere free from smoke or a landscape without factory chimneys.

(2) The under-developed countries are asking for admission into this club of industrial polluters which are not as guilty as claimed by some people.

115. All this argument shows how delicate the matter is when examined in the perspective of economic development. It should be added that industrial concerns in developed countries are being gradually subjected to stringent laws against pollution and in order to safeguard the competitiveness of their products, they transplant their industrial units into the Third World countries which, faced with employment and development problems, do not have any choice but accept to be subjected to pollution.

116. At this time when the Monrovia Declaration and the Lagos Plan of Action are calling upon African States to adopt another economic development pattern, this long introductory discussion on the problem of the environment was considered indispensable in order to re-emphasize the importance of the problem within the framework of an autonomous, self-sustained and endogenous development.

117. Thus, in view of the foregoing considerations, it can be asserted that industrialization in Africa, considered from the environmental point of view, should be effected through a technology different from that used in the developed countries. In this connexion it is essential to make scientific research autonomous and to adapt it to the actual needs of the countries within the framework of the type of society envisaged in the Lagos Plan of Action.

118. Within the context of the utilization of technology, besides the harnessing of natural resources, special importance should be given to the various uses of water as well as a wider use of raw materials and renewable energy resources. But it is not yet possible to stipulate what can be considered as an optimum relationship between the industrial regions and their ability to support the ecological stress. It is within the framework of a co-operation policy geared to this end, that countries should engage in the exchange of data on experiences and information which could assist in finding prompt solutions. Besides, since the biosphere is an indivisible entity, some activities undertaken in a given country affect the natural environment in a far-reaching way which assumes a dimension that is regional in character and could even be global.

119. Since foresight is essential to good leadership, African countries should make their industrial programmes complete by adopting a number of legislative measures aimed at forestalling any possible damage to their eco-systems. These legislative measures should be formulated at the regional level within the framework of a well defined co-operation arrangement.

120. With regard to the relationship between the environment and agricultural activities, it cannot be denied that research into ecological sciences must also constitute an important element of agricultural development programmes. Indeed, it is agricultural activities which have historically had the greatest influence on the biosphere. Consequently, agricultural zones constitute the oldest artificial eco-systems.

121. It is necessary to take the environmental factor into account especially in the field of hydro agricultural development because no in-depth studies have so far been conducted into the adverse effects of this development on eco-systems. The construction of dams offers much needed solutions to some crucial problems relating to irrigation, transport and energy but on the other hand; if care is not taken, it creates other problems of destruction of the environment. These problems, often serious, are insidious in character difficult to solve and sometimes engender other calamities.

122. Many states put great hopes in the development of their rivers. However, most of the rivers in the region are shared by several states. In view of the haphazard demarcation of "balkanization borders" the development of the major rivers should be done within the framework of consultation and intergovernmental co-operation. This means that a legal framework has to be defined to govern the rivers and lakes. Like the conference on the law of the sea, an African conference on the conditions for the exploitation of river and lake resources would make it possible to work out a genuine code for tapping water resources and potentials.

123. Similarly, it should be possible to draw up an integrated village water programme for the sedentary and nomadic populations, create an integrated fire belt and wind protection networks and reorganize on a regular basis the transhumance circuits. The over-all programme in this area should obviously incorporate health objectives such as the eradication of onchocercosis and tripanomiasis in infested areas.

124. Lastly, with regard to the relationship between urbanization and the environment, the Monrovia Declaration and the Lagos Plan of Action highlight the need to involve the populace in drawing up and implementing programmes of action. However, the vast majority of the urban population have neither a sufficient background to adequately understand environmental problems nor an adequate information base to make a decision on the problems. Therefore, the most effective solutions to these problems must include measures aimed at educating and training the urban populace.

125. Sanitation problems must be solved first at the level of each dwelling unit and then at the level of blocks of houses and the community through a collective effort embracing civic education, hygiene and health. Since urban areas are, in essence, places where social activities take place on a large scale, they are also the breeding ground of congestion, overcrowding and other nuisances which disturb the environment. Constant efforts should therefore be made to relieve congestion and to plan, regulate, control and especially combat pollution which includes unpleasant odour and noise.

126. Finally, it must be recognized, that no environmental problem can be treated in isolation. It is imperative, therefore, to constantly include these problems in each sector of economic and social activities at every stage of the development process.

V. General conclusion

127. Obviously, not all the major themes of physical planning are discussed within the framework of this study. The themes discussed here are those that are considered priority areas by the Monrovia Declaration and the Lagos Plan of Action. This constant reference to the Monrovia Declaration is the only way one can really ensure some uniformity in analysis, considering that eventhough African countries are confronted by similar situations, they are quite different from one another.

128. However, irrespective of the diverse economic situations in the countries, one should constantly bear in mind that general economic planning and physical planning are inseperable. The latter is however subordinate to the former. Physical planning in Africa must give priority to the eradication of economic imbalances within each national territory through a rational redistribution of economic activities. This is why physical planning in Africa must first and foremost aim at developing micro-areas and then making constant efforts geared towards ensuring structural cohesion between the areas thus developed.

129. However, whatever the peculiarity of national situations and the level of development, there can be no physical planning without the use of maps and statistics which are indispensable tools. Therefore, each country must henceforth launch very comprehensive cartographic programmes and make a scientific inventory of all the economic, geographical and social data, etc.

130. With these two tools each country will be able to draw up its physical planning programme, formulate its urban master plans, define its urban hierarchy, establish its communications networks, draw up rural zoning programmes and decide on the location of its industries.

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ECONOMIC COMMISSION FOR AFRICA

Third meeting of the Intergovernmental Regional Committee on Human Settlements and

First meeting of the Joint Intergovernmental Regional Committee on Human Settlements and Environment

Addis Ababa, 28 June- 2 July 1982

PROGRESS REPORT ON ACTIVITIES SINCE THE SECOND MEETING

IMPLEMENTATION OF RESOLUTIONS ADOPTED BY THE COMMITTEE

1456-0127

Summary

1. This document gives a report on the activities of the secretariat of the Economic Commission for Africa (ECA) with regard to the implementation of the resolutions adopted by the Intergovernmental Regional Committee on Human Settlements at its second meeting held at the headquarters of the ECA from 28 July to 1 August 1980.

2. At the end of its deliberations at that meeting, the Committee identified some priority areas of action and adopted relevant resolutions.

3. These priority areas are as follows:

(a) Development of the regional capability for the implementation of human settlements policies and programmes adopted by the Committee in accordance with its terms of reference;

(b) Integration and harmonization of technical assistance activities in the field of human settlements undertaken in the African region with regional economic and social development policies defined in the Lagos Plan of Action;

(c) Development of construction and building materials industries;

(d) Extension of the mandate of the Intergovernmental Regional Committee on Human Settlements to include regional environmental programmes;

(e) Status of refugees.

4. The document covers all the activities undertaken by the secretariat with regard to the implementation of these resolutions and also outlines the problems of implementation.

5. These problems resulted primarily from the lack of adequate resources and their instability due to the inability of the secretariat to get a renewal of extra-budgetary funds for the implementation of the human settlements programmes.

6. The Committee is therefore being invited to consider the appropriate measures for strengthening the mechanisms for the implementation of the regional and subregional human settlements policies and programmes. It should find the ways and means of ensuring the effective mobilization of regional resources, their concentration and co-ordination for the implementation of its regional activities, especially by harmonizing the programmes and activities undertaken in the region in respect of human settlements.

7. A proposal is made for enhancing co-operation among member countries through the establishment of technical working committees. These committees will bring together either at the headquarters of the secretariat or in the host countries, national experts and technicians who are specialists in human settlement matters and are nominated by their respective countries. These committees would examine specific issues and find solutions to problems affecting the development of human settlements. They would suggest measures and draw up regional and subregional programmes of action for assistance to be given to member States in the areas covered by the studies.

The background work in support of the activities of these committees will be done by national experts seconded to the Commission for specific periods of time by their governments at their own expense.

8. With regard to the development of building materials and building techniques, the attention of the Committee should be drawn to the Industrial Development Decade for Africa decided by the United Nations. The main objective of this programme which is under the joint responsibility of the OAU, ECA, and UNIDO, with assistance from the UNDP and in which priority is given to the development of building materials industries, is to assist African countries to develop in an autonomous and endogenous manner through the rapid promotion of the industrial sector by ensuring complementarities pursuant to the Lagos Plan of Action.

I. INTRODUCTION

9. The Intergovernmental Regional Committee on Human Settlements at its second meeting held in Addis Ababa from 28 July to 1 August 1980, adopted resolutions relating, respectively, to:

(i) "Regional human settlements policies and programmes" resolution I(II);

(ii) "Development of the building materials and construction industries" resolution 2(II);

(iii) "Extension of the mandate of the Intergovernmental Regional Committee on Human Settlements", resolution 3(II);

(iv) "Status of refugees", resolution 4(II), and

(v) "Development and application of methodologies and planning techniques studies", resolution 5(II).

II. PROGRESS REPORT ON THE IMPLEMENTATION OF RESOLUTIONS

10. Pursuant to the institutional arrangements governing the activities of the Economic Commission for Africa (resolution I(1) of the Intergovernmental Regional Committee on Human Settlements and resolution 353(XIV) of the ECA Conference of Ministers), the report and resolutions adopted at the second meeting of the Committee were presented to the second meeting of the Technical Preparatory Committee of the Whole held in Freetown from 24 March to 2 April 1981 (see document E/CN.14/301).

11. The Technical Preparatory Committee of the Whole, after studying the report and the resolutions of the Committee, submitted its comments and recommendations to the Seventh Meeting of the Conference of Ministers of Economic Planning and Development.

12. After examining the conclusions of the Preparatory Committee of the Whole, the Conference of Ministers, adopted resolution 408(XIV) entitled "Human Settlements" (see annex I).

13. In that resolution the Conference of Ministers took note of the report of the Second Meeting of the Intergovernmental Regional Committee on Human Settlements, approved the resolutions adopted by the latter and while it recommended the reconsideration of the resolution 4(II), it adopted the new arrangements regarding the extension of the mandate of the Intergovernmental Regional Committee.

14. With regard to the implementation of the resolutions of the Regional Committee, the secretariat of the Economic Commission for Africa carried out the following activities:

Resolution I(II)

15. The provisions of that resolution were divided under the following five paragraphs:

A. Institutional arrangements;
B. Technical assistance services,
C. Follow-up on Lagos Plan of Action,
D. Mobilization of resources, and
E. Inter-Agency co-operation.

16. Paragraph A of the resolution covers institutional arrangements and especially recommends that African Governments which have not yet introduced requisite measures for restructuring their institutional machinery for the tasks of formulation, implementation, evaluation and re-orientation of their human settlements policies, strategies and programmes for their effective integration within the national social and economic objectives and programmes, should do so. Furthermore, it was recommended that Governments of member States, if they so need, should avail themselves of the technical assistance and advisory services of the Economic Commission for Africa for the satisfactory completion of the required studies and the implementation of the measures for restructuring their institutional machinery for human settlements policies and programmes.

17. By these two resolutions, the Intergovernmental Regional Committee on Human Settlements reaffirmed the primary importance of the integration of economic and social development policies and programmes at the national and local levels for solving the problems of human settlements in the region and the need for establishing and developing the national machinery for the formulation and implementation of human settlements policies that could provide an effective solution to national problems.

18. In this connexion, it is necessary to recall the report of the second meeting of the Intergovernmental Regional Committee held in Addis Ababa from 28 July to 1 August 1980 (document E/CN.14/HUS/42). This report contains the discussions held during the meeting on the situation at national level with regard to the establishment and strengthening of the appropriate machinery. The Committee took note of the efforts made by a number of governments of member countries towards the establishment or the development and utilization of such a machinery, and urged those who had not yet implemented the requisite measures for the establishment of these institutions to take the appropriate steps in that regard.

19. In implementing that resolution the secretariat concentrated on the efforts which governments should make to establish this machinery. Many member States currently lack the qualified staff in the required numbers to ensure the establishment and operation of such a machinery. Consequently, the secretariat encouraged in the first instance the setting up of national departments to co-ordinate sectoral policies relating to the regional priorities identified by the Intergovernmental Regional Committee, namely:

(i) Machinery for the formulation of human settlements planning policies in the economic and social development process and,

(ii) Machinery relating to the development of national capabilities in respect of construction policy.

20. With regard to human settlements planning policies, the secretariat of the Commission provided technical assistance to member States mainly through the services of regional planning and urban development experts working in the East African and West African Multinational Programming and Operational Centres (MULPOC). In addition to the services provided by the experts in the subregional offices, some missions were undertaken by experts from the Commission's Headquarters. Missions were undertaken to Botswana, the Gambia, Ghana, Guinea, Guinea Bissau, the Ivory Coast, Kenya, Lesotho, Malawi, Mali, Mauritius, Mozambique, the Niger, Senegal, Seychelles, Swaziland, the United Republic of Tanzania, the Upper Volta and Zimbabwe.

21. These missions made it possible to collect data for analysing national mechanisms for the formulation and implementation of human settlements policies and programmes, especially the mechanisms for co-ordination as well as those for the evaluation of skilled manpower needs.

22. However, the secretariat has not been able to follow-up the action undertaken in the West African and East African MULPOCs. As discussed later on, the secretariat could not maintain the services of the experts in these subregions due to the lack of extra-budgetary financial resources. The activities undertaken by the experts during their period of service did not only make it possible for the secretariat to meet requests for assistance, strengthen co-operation with the UNCHS (Habitat), participate actively in the activities of governmental and non-governmental organizations, but they also facilitated the collection of data for the formulation of programmes and projects of assistance for the establishment or strengthening of mechanisms for co-ordinating human settlements development policies and ensuring their linkage with the economic and social development sectoral policies.

23. It should be mentioned at this juncture that action is being taken to recruit an expert in spatial planning of integrated social and economic development policies. The secretariat thus hopes to be able to pursue the implementation of the programme and, particularly, to examine the problem of methodologies appropriate to regional conditions.

24. As regards the machinery for the formulation and implementation of programmes for the development of construction capacity, a detailed report is contained in paragraph 44. The action of the secretariat in this regard, can be summed up as an effort to assist in setting up, at the national level, a nodal mechanism for the co-ordination of construction policies.

25. It should be recalled here that at its previous session, the committee had, in the operative paragraph of its resolution I(II) entitled "Regional Human Settlements Policies and Programmes", recommended that governments of member States should inform the secretariat of the actions they had undertaken to restructure their institutional machinery to enable the secretariat to assess the global situation prevailing in the region and the necessary efforts that should be made to speed up the establishment of these mechanisms. Since this recommendation has not been fully implemented, the secretariat is not yet in a position to make a general appraisal of the situation. Governments of member States should be urged to make an effort in this direction and a programme of action should be proposed during this meeting.

26. Paragraph B of resolution I(II), on technical assistance services, requests the Executive Secretary of the Economic Commission for Africa to take the appropriate steps to promote and strengthen the institutional facilities within the Commission, in order to extend the required technical assistance and advisory services to the African Governments on request, by consolidating and expanding the Housing,Construction and Physical Planning Section at the headquarters into a full-fledged Division, strengthen concurrently the human settlements services available at the Lusaka and Niamey MULPOCs and extend such services to the Gisenyi, Yaounde and Tangiers MULPOCs.

27. The secretariat of the Commission endeavoured to take the appropriate steps to ensure the implementation of this operative paragraph of the resolution. However, the decision by the General Assembly to maintain a zero-growth budget within the UN system prevented the secretariat from acquiring sufficient additional resources to implement this resolution. Consequently, pending the acquisition of more adequate

resources, the secretariat is examining measures that could give greater responsibility and autonomy to the Section responsible for human settlements programmes within the Commission by transforming that Section into a "Human Settlements Unit".

28. Lastly, in the third part of the operative paragraph B of resolution I(II), the committee requests the Executive Director of the United Nations Centre for Human Settlements (Habitat) to take appropriate steps to make the information and audio-visual services of Vision-Habitat available to all African countries by utilizing the existing ECA MULPOC facilities in the various subregions.

29. The secretariat has included this request of the Committee among the subjects to be discussed between the Secretariats of the United Nations Centre for Human Settlements (Habitat) and the United Nations Economic Commission for Africa. A report on the conclusions of the working sessions to be held will be submitted to the Committee.

30. Paragraph C of resolution I(II) is entitled "Follow-up on Lagos Plan of Action". In the operative paragraph (a) the Committee requests the Executive Director of the United Nations Centre for Human Settlements (Habitat) to ensure the involvement of the Economic Commission for Africa, from the beginning, in all the regional technical assistance activities in respect of human settlements to be carried out by UNCHS in the African region, with a view to ensuring their effective integration and harmonization with the social and economic development programmes of the region keeping in view ECA's mandate in this regard and ensuring adequate monitoring of their consistency with the Lagos Plan of Action and proper decentralization. In the operative paragraph (b), the Committee requests all African States members of the United Nations Commission on Human Settlements to hold preparatory meetings with the Human Settlements Section of the Economic Commission for Africa at least two days prior to the meetings of the United Nations Commission on Human Settlements in order to ensure concerted approach and actions and proper co-ordination and effective decentralization, bearing in mind the decisions and priorities outlined by the Intergovernmental Regional Committee on Human Settlements.

31. The Committee thus reiterates its concern, already expressed during its first meeting, to avoid the dissipation of available resources in the region and the need to mobilize these resources so as to achieve the regional objectives it has set.

32. During the next working sessions, the secretariat of the Commission will again draw the attention of the United Nations Centre for Human Settlements (Habitat) to this major concern of the Committee. The secretariat of the Commission will endeavour to harmonize its regional work programmes with those of UNCHS (Habitat). It should be recalled that in compliance with the operative paragraph (b) of the resolution, the African member States of the Commission on Human Settlements held consultation meetings with the representative of the secretariat during the fourth meeting of the Commission on Human Settlements held in Manilla, Philippines, from 27 April to 6 May 1981. Following these working sessions, they presented a number of draft resolutions to the plenary sessions of that meeting which led the Commission to adopt resolutions on the following issues:

4/4 "Strengthening of the Human Settlements Unit of the Economic Commission for Africa at Addis Ababa";

4/5 "Co-operation at the regional level related to human settlements";

4/6 "Mobilization and Utilization of resources for human settlements development";

4/10 "Utilization of consultants and experts" and

4/12 "Assistance to victims of apartheid and colonialism".

The text of these resolutions is contained in annex II of this document.

33. African States Members of the Commission on Human Settlements were informed of similar meetings organized during the fifth meeting of the Commission held in Nairobi from 20 April to 7 May 1982. At these meetings, the Commission will submit a progress report to the African participating States on the implementation of the above-mentioned resolutions 4/4, 4/5, 4/6 and 4/10. During the current meeting, a report will be submitted to this Committee on the decisions of the African Group and the resolutions taken by the Commission on Human Settlements which are relevant to the African region.

34. Paragraph D entitled "Mobilization of Resources" calls for the mobilization of available resources for the implementation of the regional programme. To this end, the Committee requests the Executive Director of the United Nations Centre for Human Settlements (Habitat) to redeploy the resources made available to the region to enable the Economic Commission for Africa to carry out the required activities expeditiously. The United Nations Secretary-General is also requested to lend his full support to the needs of the African region by allocating additional funds to enable the Economic Commission for Africa to carry out human settlements activities as per the mandate of the Committee. Lastly, the Executive Secretary of the Economic Commission for Africa is requested to ensure that the Human Settlements Programme benefits from the "UN Trust Fund for African Development" and, in addition, organize the mobilization of additional resources.

35. During the interval between the last meeting held in 1980 and the current meeting, two experts from Habitat have been posted to the Commission's secretariat to implement the regional programme of HABITAT. This Centre also provided the experts with secretarial services.

36. The Housing, Construction and Physical Planning Section of the Economic Commission for Africa placed all the available facilities at the disposal of these experts. It also offered them all the necessary technical support by organizing joint working sessions and financed the participation of one of them in a subregional meeting.

37. It should be noted that, during the period under review, the secretariat of the Commission placed extra-budgetary funds at the disposal of the Housing, Construction and Physical Planning Section. This enabled the Section to undertake some activities contained in its programme of work and priorities, namely, assistance to the governments of member States of MULPOCS in West and East Africa by recruiting two experts for the subregions. Furthermore, aid missions financed from extra-budgetary funds were also organized by the headquarters of the Commission.

38. It should be recalled that the allocation of the extra-budgetary funds and particularly the apportioning of the United Nations Trust Fund for Development is done in accordance with the order of priorities specified by the member States at the time of their contributions. It should be noted, in this connexion, that during the last pledging session held at the end of the seventh meeting of the Conference of Ministers responsible for Economic Planning and Development held in Freetown from 6 to 10 April 1981, only three governments included human settlement programmes among the priority areas to be covered by their contributions to the Fund. It would, therefore, be advisable that the members of the Intergovernmental Regional Committee on Human Settlements draw the attention of their respective governments to the importance of the human settlements regional programme and the need for an active support for its implementation.

39. In the field of inter agency co-operation, (paragraph 4 of resolution I(II) the secretariat participated in technical meetings organized by Habitat at the latter's invitation. The secretariat also took an active part in the international meeting of experts on the development of the indigenous construction sector as well as in the international preparatory meeting held in Nairobi for the organization of a symposium on low-cost building materials.

40. Furthermore, the secretariat participated in meetings organized by the African Development Bank for the establishment of Shelter-Afrique, an institution for financing housing construction projects. It also prepared and presented a working document to "The final preparatory meeting for Shelter-Afrique held in Arusha, Tanzania from 31 August to 4 September 1981".

41. As part of the implementation of the building materials and construction industries development programme, the secretariat, in co-operation with the African Regional Organization for Standardization (ARSO), took action in formulating proposals for studying and introducing standards for certain building materials. It is worth recalling that the building materials and construction industries development programme was formulated jointly by the OAU, ECA and UNIDO with the financial assistance of UNDP.

42. Within the framework of the implementation of the same programme, and as will be explained later, the secretariat established working relations with the International Labour Organization (ILO).

43. During meetings held at UNESCO's Headquarters in Paris, the secretariat of the Commission and the United Nations Educational, Scientific and Cultural Organization considered areas of co-operation in the implementation of their respective human settlements programmes in the African region. The modalities of this co-operation are being studied.

Building Materials and Construction Industries Development Programme

44. The resolution 2(II) relates to the development of building materials and construction industries for which a special programme (Building Materials and Construction Industries Development Programme) financed by extra-budgetary resources is under implementation. It will be recalled that the primary objective of this programme is to stimulate and assist African countries in increasing their capabilities for self-sustaining growth and achieving self-sufficiency in the building materials and construction industries at the continental level.

Progress of programme activities (July 1980 - March 1982)

45. The range of activities undertaken includes provision of technical advisory services to the countries, implementation of field studies on specific projects of subregional or regional importance, organization of experts groups meetings, organization of study tours and in-plant training programmes and preparation of relevant documents for the attention of the African countries. A brief description is given below of some of the major activities that have been undertaken.

Regional advisory services

46. ECA through the Programme team of experts provides technical assistance, on request, to countries on specific aspects of the development of the building materials and construction industries. These advisory services have been provided also through the ECA subregional offices (the Multinational Programming and Operational Centres).

47. Since 1980, field missions have been undertaken to the following countries at the invitation of the governments: Botswana, Djibouti, Ghana, Kenya, Lesotho, Mozambique and Swaziland. The areas of assistance covered in the missions are: appraisal of raw materials situation, scope for utilization of locally available materials like agricultural residues, gypsum, clam shells, limestone, etc., for production of low-cost building materials, improved technologies for bricks and stabilized soil blocks production, scope for increasing cement production and proposals for strengthening building materials production facilities and construction services. Further, there were missions to Benin, Burundi, Cameroun, Ethiopia, Guinea, the Ivory Coast, Mali, Niger, Rwanda, Togo, Tunisia, the Upper Volta and Zaire for promoting specific projects of regional or subregional character such as building and building materials research facilities, rationalization of building codes and regulations in light of local needs, etc. These field missions have led to the submission of recommendations on, among others, priority projects for the indigenization of the building materials industries and the setting up of appropriate institutional mechanisms for the promotion of the industries.

Promotion of institutional mechanisms

48. It is not enough that the various clients of the construction sector (and, by implementation of the building materials industries) work out their requirements individually in their separate ways unmindful of the construction demand of each other and of the actual capacity and limitation of the construction sector. It is necessary to have a focal point in government with necessary authority and expertise which, on behalf of the various major clients of the construction sector, can assess the short and long term national demand for construction, examine critically the capacity and the needs of the construction sector to meet the demand, draw up an appropriate development programme, submit proposals for government approval and assist in organizing their implementation.

49. The experience in many African countries has been that such a centralized machinery (focal point) for the co-ordinated and systematic planning of the building materials and construction sector has been lacking with the result that the piece-meal measures that have been implemented have not helped significantly in resolving the acute problems facing the sector. This has added to the ever increasing cost of construction. ECA has therefore been urging African governments to set up a 'Nodal mechanism' for this purpose. Some countries have set up such a mechanism or are in the process of doing so.

50. Studies undertaken by ECA have also shown that such mechanisms at the subregional level, for example, in the form of "Building Materials and Construction Industries Development Councils" within the framework of the secretariats of the existing/planned economic groupings would constitute an appropriate framework for the promotion of joint subregional activities covering harmonization of policy aspects and setting out of modalities of project identification, planning and execution in areas where there is commonality of interest. The activities of such a council would be directed at promoting the achievement of collective self-reliance in the building materials and construction industries in the subregion through the co-ordination of maximum utilization of the resources available in the various countries.

51. In this connexion, ECA has examined the possibilities for setting up Building Materials and Construction Industries Development Councils for the CEPGL countries (Burundi, Rwanda and Zaire) and for countries in the West African subregion. Documents outlining the constitution, tasks, responsibilities and subregional linkages of the proposed councils have been prepared and submitted for the consideration of the secretariats of CEPGL and ECOWAS.

Study tour of India

52. In collaboration with the Government of India, the Economic Commission for Africa organized a study tour in India followed by a technical workshop for a team of 12 African experts on the building materials and construction industries drawn from Burundi, Congo, Ethiopia, Ghana, Guinea, Madagascar, Nigeria, Sudan, Tunisia, the United Republic of Camerou, and the United Republic of Tanzania, during the period 30 April to 15 June 1981. The purpose of the study tour was to provide an opportunity for the experts, who were mainly high level technicians fromthe ministries of planning, industry, works and housing, and also from research and promotional institutions, to acquire a first-hand experience of, and to familiarize themselves with, the progress that India has made in the building materials and construction sector by making optimum use of all kinds of resources available locally. This covered, among others, formulation of policies and programmes, the production of building materials from local raw materials using a range of technologies (mostly unsophisticated), techniques for building construction making maximum use of available skills, expertise and materials, the promotion of research and development and mechanisms for translating the results of research into practice, etc.

53. The study tour which took the African experts to New Delhi, Roorkee, Dehradun, Satna, Madras, Tiruchirapalli and Bangalore, afforded them the opportunity to visit, and hold discussions with Indian experts at building materials production plants employing varying scales of technologies, building and building materials research and development institutions, housing development organizations and promotional organizations in the building materials and construction sector. The experts also had discussions with officials of the All India Brick and Tile Manufacturers Federation and the Lime Manufacturers Association of India.

54. The workshop which was organized immediately following the study tour was planned to provide a forum for the African experts to exchange ideas and experiences with their Indian counterparts in the light of their observations on the various visits and discussions undertaken during the tour, so as to be able to concretize their views about the Indian experiences and to identify in what specific ways African countries could take advantage of Indian experiences in the promotion and development of the building materials and construction industries, giving due attention to the specific nature of available resources and needs in the African countries.

In-Plant training in India

55. This programme, which was organized as a follow-up to the above study tour, was meant to provide an opportunity for a group of African experts directly involved in the production of building materials and with building construction activities to study, in greater detail, specific aspects of the building industry in India, and to gain additional experience which could be useful in promoting the adoption of technologies that are appropriate to conditions in their countries. During the period of the training programme organized from 21 October to 27 November 1981, the participants drawn from Angola, Central African Republic, the Gambia, the Ivory Coast, Togo and the United Republic of Tanzania, were attached to various organizations and institutions depending on their specific interests in the field of local building materials and low-cost housing.

56. The experts were unanimous in acknowledging that the in-plant training had been a very successful exercise in technical co-operation among developing countries (TCDC) and that it had enabled them to discover simple technologies and techniques, some of which could be applied directly in their countries.

Promotion of research and development activities

57. It will be recalled that in this field, ECA organized, in collaboration with other United Nations agencies and the Government of the Republic of Burundi, a meeting of Directors of African Building Materials Research Institutes in Bujumbura, Burundi from 30 April to 3 May 1980. A detailed account of this was given during the second session of the Committee. As follow-up to the recommendations of that meeting, ECA has undertaken the necessary studies, organized a meeting of experts (Lomé, Togo, 13-17 April 1981) and prepared a project document on the transformation of the existing building research centre at Lomé, Togo (Le Centre de la Construction et du Logement, Cacavelli), into a subregional building and building materials centre to serve initially the following countries in the West African subregion: Benin, Guinea, the Ivory Coast, Mali, Niger, Togo and the Upper Volta. It is expected that the project document, the draft agreement and the constitution of the Centre will be finalized soon with the concerned governments to enable the commencement of the new Centre's activities by the end of 1982. Prefeasibility studies have also been completed for the establishment of a joint building and building materials research centre for the Economic Community of the Great Lakes Countries (Burundi, Rwanda, Zaire).

58. Based on information collected from the member countries, ECA has prepared two draft directories, one on the building and building materials research organization and the other on building and building materials research scientists and technologists in the African region. These draft directories will soon be circulated among the countries for comments and additional information which will be incorporated in the final version to be published by the end of 1982.

Standardization of building materials

59. As part of its activities for the promotion of indigenous building materials as well as the trade of raw materials and semi-finished and finished products in African countries, ECA has initiated a questionnaire survey of standardization organizations and the scope of their programmes particularly in the building materials and construction sector. This project activity which is being undertaken in co-operation with the African Regional Organization for Standardization (ARSO) aims at

defining the basis for specific programmes for joint activities in the preparation, in the first instance, of regional standards for selected building materials which would help in the formulation of national standards.

Reformulation of Building Codes and Regulations

60. In the light of the prevailing situation in this field in the African region, ECA has undertaken a study, through the services of a consultant, on the status of building codes and regulations in some selected countries (Cameroun, Egypt, Ethiopia, Mozambique, Nigeria, Rwanda, Senegal and Tanzania). The study led to a set of recommendations on several aspects of a building code and related matters and suggested a format for the rationalization of building codes and regulations. The study also emphasized the need to make the code a live and dynamic instrument, through five-year reviews, to keep pace with the needs, aspirations of people and technological developments in the field of building materials and construction.

61. The next phase of this project activity will be the preparation of a model building code which will be brought to the attention of the governments for study and possible adoption with such modifications as considered necessary, to suit specific conditions.

Dissemination of information on the building materials and construction industries

62. Preliminary studies have been completed with regard to the setting up of a regional information network on building materials and construction industries with subregional and national linkages. The netowrk which will facilitate access to information and information sources both within Africa and in other regions of the world will be established in consultation and collaboration with the PADIS (Pan-African Documentation and Information System) programme of ECA. The details of the network are being worked out. The success of the network will vitally depend on a dynamic information system at national level.

Regional and international co-operation

63. One of the general objectives of ECA, as a regional Commission, is the establishment and promotion of fruitful co-operation links among the countries in the region within the context of the goal of achieving national and regional development through individual and collective self-reliance. The activities of the building materials and construction industries development programme, already described above, have therefore been implemented with this objective in view. The organization of experts group meetings, the preparations for the setting up of subregional research centres, the bringing together of national experts as members of study tour teams, etc., have all contributed to strengthening the links among the countries in the field of building materials and construction.

64. ECA has also initiated action towards establishment of links with organizations and institutions in both developed and developing countries outside Africa, whose activities in technology development and promotion, research, documentation and information, etc. could provide an input to the development of the building materials and construction industries in Africa. The results deriving from these co-operation arrangements will be disseminated to the countries in the African region. Already the study tour and in-plant training organized in India in 1981 have helped in cementing relations with institutions like the National Buildings Organization, the Cement Research Institute, the Central Building Research Institute, who are all keen on assisting African countries in their area of competence, as may be necessary.

Resolution 3(II)

65. Considering the serious effect of environmental problems on the future of Africa and especially, after examining the impact of human settlements on the environment and conversely, the extent of ecological constraints to finding solutions to urban problems, the Committee adopted resolution 3(II) on the extension of its mandate to include the regional environmental programme.

66. The secretariat of the Commission submitted this resolution to the seventh Conference of Ministers held in Freetown from 6 to 10 April 1981. That Conference formulated and adopted, in its resolution 408(XVI) on Human Settlements, measures relating to the extension of the Committee's mandate to incorporate regional environmental programmes. It endorsed the proposal on the modification in the Committee's name which has subsequently become the "Joint Intergovernmental Regional Committee on Human Settlements and Environment". It also adopted the provisions of the terms of reference of the newly established Joint Committee (see annex I).

67. That decision of the Conference of Ministers enabled the Economic Commission for Africa to complete its institutional arrangements by establishing a subsidiary body in charge of formulating and implementing the regional programme for the environment.

68. Consequently, this meeting, the third of the Intergovernmental Regional Committee on Human Settlements, is also the first meeting of the Joint Intergovernmental Regional Committee on Human Settlements and Environment.

Resolution 4(II) "Status of refugees"

69. After discussing the problems regarding the settlement or resettlement and temporary or final integration of persons displaced as a result of wars of aggression or man-made phenomena or otherwise in the places where they are received and the technical problems faced by the host country in settling them, the Committee urgently called upon the Executive Secretary of the Economic Commission for Africa to mobilize resources and launch a special programme for assistance to member countries on request. Following that resolution, the secretariat made preliminary contacts with the African Regional Office of the United Nations High Commissioner for Refugees so as to consider possible areas of co-operation.

70. However, since the seventh Conference of Ministers felt that the resolution of the Committee needed to be reconsidered by the Committee in view of the dimension and the extent of some of the implications of the problems of settlement and resettlement of displaced persons, the secretariat suspended its implementation, pending its reconsideration by the Committee.

Resolution 5(II)

71. Resolution 5(II) is entitled "Development and application of methodologies and planning techniques in pilot studies". In that resolution the Committee expressed the urgent need for conducting a study on methodologies and planning techniques which would satisfy the regional, economic, social and cultural conditions.

72. In order to study the most adequate approaches for the implementation of this resolution, the secretariat of the Commission conducted preliminary evaluation surveys through its experts working in the East African and West African subregions (see paragraphs 12-13). However (see paragraph 14) since the services of these experts were terminated and, moreover, since a regular post in the professional category has not been filled, the secretariat had to defer, temporarily the implementation of this programme. An expert is being recruited and this should make it possible to formulate an appropriate method for resuming the implementation of this resolution. The expert will be required, especially, to carry out pilot studies and propose, for consideration by national experts, methodological approaches for the formulation and implementation of programmes. He will also have to co-operate with national officials and experts for the promotion and execution of pilot projects.

Periodicity of the meetings of the Intergovernmental Regional Committee

73. As proposed by the secretariat, the Intergovernmental Regional Committee at its last meeting decided to modify its meetings schedule. It was agreed that the meetings of the Committee would be held every eighteen months instead of every twelve months.

74. In view of the numerous meetings and conferences it had to organize in 1981, the secretariat was unable to convene earlier, this meeting which should normally have been held towards the end of 1981.

III. CONCLUSION

75. In conclusion, it should be emphasized that during the period under review, that is the period from 1 August 1980 to 28 July 1982, the secretariat took the necessary measures to ensure the implementation of the decisions taken by the Intergovernmental Regional Committee on Human Settlements at its second meeting and endorsed by the seventh meeting of the ECA Conference of Ministers held in Freetown from 6 to 10 April 1981.

76. Certain difficulties arose, which slackened the secretariat's action. Among them was the lack and some kind of inconsistent provision of resources. In fact, although the Committee was aware of the great importance of mobilizing resources and utilizing them for the efficient implementation of its decisions in conformity with its stated regional objectives, the secretariat did not succeed fully in mobilizing the necessary resources. This explained why the programme suffered a little from these short-comings.

77. Thus, as suggested in this report, the Committee should re-consider the full range of existing facilities including inter-African co-operation and the priority objectives in relation to the resources that are actually available.

78. Regarding inter-African co-operation, the Committee should, for example, recommend to the governments of member States to increase the portion of the United Nations Trust Fund for African Development, which should be earmarked for the human settlements programme. It was emphasized in paragraph 29 of this document that at the pledging session held during the seventh Conference of the Commission's Ministers, only three governments requested that a portion of their contribution be earmarked for the human settlements programme. It would be desirable for a greater number of governments to show their support for the programme at the next pledging session. National organizations and departments should draw the attention of their respective governments to the importance of this programme and the need for a regional effort to support its implementation.

79. Within the framework of regional co-operation, the Committee could also consider the possibility of the secondment of national experts to the secretariat (see document E/ECA/HUS/5). These experts would be responsible for carrying out specific studies which would serve as the basis for the work of the group of African experts within the technical study committee.

408(XVI) Human settlements[1/]

The Conference of Ministers,

Recalling its resolution 358(XIV) of 27 March 1979 on institutional arrangements for human settlements which reaffirmed the mandate of the Intergovernmental Regional Committee on Human Settlements, and resolution 378(XV) of 12 April 1980 on an action plan and institutional machinery for a regional programme on the environment for Africa which requested the Executive Secretary to work out the terms of reference for a joint sectoral body for human settlements and environment,

Further recalling General Assembly resolutions 31/116 of 16 December 1976, 32/162 of 19 December 1977 and 32/197 of 20 December 1977,

Having examined the report [2/] of the second meeting of the Intergovernmental Regional Committee on Human Settlements held at Addis Ababa from 28 July to 1 August 1980 and the resolutions adopted at that meeting,

Appreciative of the progress of activities relating to human settlements development which includes building materials and construction industries development,

Commending the positive guidance given by the Intergovernmental Regional Committee through its resolutions towards the development of human settlements as an integral feature of the over-all African development strategy consistent with the implications of the Lagos Plan of Action, [3/]

Appreciating the assistance being provided by the United Nations Centre for Human Settlements to a large number of African countries,

1. Endorses the report and resolutions adopted at the second meeting of the Intergovernmental Regional Committee on Human Settlements subject to the reconsideration by the Committee of resolution 4(II) concerning the situation of refugees in Africa and without prejudice to the operational role of the United Nations Centre under resolution 32/162 as mentioned in the report [4/] of the second meeting of the Technical Preparatory Committee of the Whole;

2. Approves that the mandate of Intergovernmental Regional Committee should include environmental matters and their implications and authorizes that the Committee be renamed the Joint Intergovernmental Regional Committee on Human Settlements and Environment in conformity with resolution 378(XV) mentioned above and the provisions contained in the report of the Intergovernmental Regional Committee on Human Settlements,

3. Decides that the terms of reference of the Joint Intergovernmental Regional Committee on Human Settlements and Environment for the regional environment programme should include the following in addition to what is provided in General Assembly resolution 32/162 for human settlements:

1/ See chapter III, paragraphs 70 and 71 above.
2/ E/CN.14/782.
3/ A/S-11/14, Annex I.
4/ E/CN.14/813-E/CN.14/TPCW.II/28.

(a) Formulation of policies, priorities and strategies for regional, subregional and transnational environmental management in the African region,

(b) Promotion of the exchange of information and experience on national environmental policies, legislation, programme and problems;

(c) Review of the work programme and priorities on the environment in the Commission, appraisal of progress made in their implementation and assistance in mobilizing financial and other resources for programming in priority environmental areas in the African region;

(d) Assistance in assembling information on national environmental problems for the preparation of the state of the environment report on the African region,

(e) Promotion of programmes on environmental education for the public through the mass media and for the training of nationals as specialists to monitor, assess, manage and carry out research on environmental problems;

(f) Promotion of close inter-organizational co-operation on environmental matters between the Commission and the United Nations Environment Programme, and all other United Nations intergovernmental and non-governmental organizations working within and outside the African region;

4. Calls upon the Economic Commission for Africa and related United Nations agencies and other agencies to take measures for the successful and speedy implementation of the above-mentioned resolution and requests in particular the Executive Secretary and the Executive Director of the United Nations Environment Programme to establish systematic and effective collaboration based on regular consultations; and to this end, further requests the Executive Secretary of the Economic Commission for Africa to work out, in consultation with agencies concerned, and especially the United Nations Centre for Human Settlements, the United Nations Environment Programme, the United Nations Development Programme and the United Nations Industrial Development Organization, an appropriate basis of modalities for interagency co-operation;

5. Requests the Executive Secretary to strengthen the regional and subregional operational capabilities of the Human Settlements Section through the creation or expansion of the necessary facilities in all the Multinational Programming and Operational Centres for responding to the needs of member States in matters pertaining to the development of human settlements, and particularly the development of building materials and construction industries,

6. Invites member States which have not done so to pay particular attention to the establishment at the national level and within the framework of the Multinational Programming and Operational Centres of appropriate mechanisms and methodologies for evolving comprehensive human settlements policies integrating the relevant sectoral programme on physical, urban and settlement planning, housing and other shelter, infrastructure and construction development policies; and to this end to promote pilot studies and projects;

7. Invites further member States to take the necessary steps for the rapid implementation of the Pan-African Documentation and Information System's complementary file on HABITAT-Africa within the framework of national documentation and information centres;

8. Requests specially the United Nations Development Programme, the United Nations Industrial Development Organization, the United Nations Centre for Human Settlements, the United Nations Environment Programme and bilateral and other sources to extend to the Commission further and increased support for the expansion and diversification of its services in the field of building materials and construction industries development and its successful continuation until the objectives assigned to it have been achieved;

9. Decides to refer resolution 4(II) to the Intergovernmental Regional Committee on Human Settlements for its reconsideration in the light of the concerns expressed at the second meeting of the Technical Preparatory Committee of the Whole.

4/4 Strengthening of the human settlements unit of the Economic Commission for Africa at Addis Ababa

The Commission on Human Settlements,

Recalling General Assembly resolution 32/162 of 19 December 1977 on institutional arrangements for international co-operation in the field of human settlements,

Taking note of the Lagos Plan of Action for the IMPLEMENTATION OF THE Monrovia Strategy for the Economic Development of Africa adopted on 29 April 1980 by the Assembly of Heads of State and Government of the Organization of African Unity at its second extraordinary session devoted to economic matters, held at Lagos,

Taking note alsoof the resolutions and recommendations adopted at the second meeting of the Intergovernmental Regional Committee on Human Settlements, held at Addis Ababa from 28 July to 1 August 1980,

Recognizing the urgent need to strengthen the human settlements unit of the Economic Commission for Africa for the effective implementation of the relevant sections of the Lagos Plan of Action,

Bearing in mind that, in accordance with section IV, of General Assembly resolution 32/162, the Economic Commission for Africa has already established an intergovernmental committee on human settlements,

Appreciating THE ASSISTANCE BEING PROVIDED BY THE United Nations Centre for Human Settlements (Habitat) to a large number of African countries,

Welcoming the redeployment by the Executive Director of the Centre of two Professional posts and one General Service post to the Economic Commission for Africa in Addis Ababa,

Taking note of resolution 408(XVI) - Human Settlements - of the Council of Ministers of the Economic Commission for Africa which endorsed resolution I(II) of the second meeting of the Economic Commission for Africa Intergovernmental Regional Committee on Human Settlements requesting the Executive Secretary of the Commission, without prejudice to the operations of the Centre, to further consolidate, strengthen and expand the Housing, Construction and Physical Planning Section of the Commission,

Urges the United Nations Centre for Human Settlements (Habitat) and the Economic Commission for Africa to continue to strengthen their relationship through periodic discussions on programme coordination and through exchanges of information on all regional and subregional human settlements activities in Africa.

4/5 Co-operation at the regional level related to human settlements

The Commission on Human Settlements,

Recalling General Assembly resolutions 32/162 of 19 December 1977, on institutional arrangements for international co-operation in the field of human settlements, and 35/56 of 5 December 1980, containing the International Development Strategy for the Third United Nations Development Decade, in particular paragraphs 159 and 160 thereof,

Recalling also Commission on Human Settlements resolutions 2/5 and 2/6 of 4 April 1979 and 3/7 of 15 May 1980,

Further recalling the Buenos Aires Plan of Action, the special responsibilities of regional commissions with regard to promoting economic and social development through technical co-operation among developing countries and the potential of technical co-operation among developing countries in the field of human settlements,

Recognizing that human settlements constitute a basic element of social and economic development,

Also recognizing the importance of international co-operation as a factor complementary to the policies and actions of national Governments,

Noting that the type and basis of international co-operation and support have been defined in various resolutions, in particular General Assembly resolutions 32/162 and 35/56,

Recalling that the need for co-operation at the regional level, as a component of international action, has been emphasized in, inter alia, General Assembly resolution 32/162, section IV, Commission on Human Settlements resolution 2/5, on support for Latin American and Caribbean regional action on United Nations institutional questions relating to human settlements, and Commission on Human Settlements resolution 3/7, on co-operation and organization at the regional level,

Noting that the activities of the United Nations system in the area of human settlements need to be strengthened at the regional level through the full implementation of General Assembly resolutions 32/162 and 32/197 of 20 December 1977 as they relate to the redeployment of resources from the United Nations Centre for Human Settlements (Habitat) to the regional commissions,

Recognizing the existing limitations on increases in the United Nations budget,

1. Urges the United Nations Centre for Human Settlements (Habitat) and the regional commissions to continue to strengthen their ties and co-operation in the field of human settlements, inter alia, through the establishment of joint units in accordance with paragraph 6 of Commission on Human Settlements resolution 3/7;

2. Further urges the regional commissions to consider ways and means of improving regional and subregional collaboration in the field of human settlements through the promotion of technical co-operation among developing countries;

3. Requests the Centre to take appropriate action to improve co-ordination with other agencies of the United Nations system and to ensure more effective action at the regional level;

4. Urges that regional commissions enhance regional and subregional co-operation in the field of human settlements and to that end make available sufficient resources for their human settlements units;

5. Requests the Secretary-General to propose to the General Assembly at its thirty-sixth session that the temporary assistance approved for deployment to the regions for 1981 be coverted into established posts as of 1982;

6. Requests the Executive Director of the Centre of the Centre to prepare and submit to the Commission at its fifth session a detailed report on the implementation of this resolution, with special emphasis on:

(a) The programmes of the Centre at the regional level;

(b) The Executive Director's proposal for implementing the Centre's work programme for the period 1982-1983, with special reference to the regions;

(c) The means by which institutional co-ordination between the Centre and each of the regional commissions is to be further promoted, in accordance with Commission on Human Settlements resolution 3/7 as it relates to the joint units.

4/6 Mobilization and utilization of resources for human settlements development

The Commission on Human Settlements,

Bearing in mind General Assembly resolution 32/162 of 19 December 1977 on institutional arrangements for international co-operation in the field of human settlements, which, inter alia, provided for the mobilization and utilization of resources in the various regions in the field of human settlements,

Further bearing in mind other relevant General Assembly resolutions, including in particular resolutions 3327 (XXIX) of 16 December 1974, 31/109 of 16 December 1976, 31/113 of 16 December 1976, and 34/114 and 34/116 of 14 December 1979,

Taking note of the International Development Strategy for the Third United Nations Development Decade which, inter alia, stresses the significance of mobilizing financial and other resources for development, including development in the field of human settlements, d/

Recognizing the urgent need to mobilize financial, manpower and other resources necessary for the promotion of technical co-operation, research, training,

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d/ General Assembly resolution 35/56, annex, paras. 96-114 and 159-160.

the dissemination of information and other activities in Africa, and for the effective implementation of the Lagos Plan of Action, as adopted by the Assembly of Heads of State and Government of the Organization of African Unity,

Convinced that it is necessary to utilize financial and other resources promptly once they have been allocated to human settlements development,

Recognizing that urgent steps should be taken to ensure a better mobilization of financial resources at all levels with a view to improving human settlements,

1. Adopts the recommendations of the Executive Director of the United Nations Centre for Human Settlements (Habitat) on the mobilization of finance and other resources for human settlements development, as contained in his reports to the Commission on Human Settlements at its fourth session,

2. Requests the Executive Director of the Centre to ensure the prompt utilization of the resources allocated to the Economic Commission for Africa and the other regional commissions;

3. Requests the Executive Director of the Centre to intensify his efforts to mobilize financial and other resources for human settlements development, especially in the developing countries;

4. Calls upon all States and international organizations, including international financial institutions, to increase their voluntary and other contributions in this regard to developing countries;

5. Calls for the accelerated implementation of relevant General Assembly resolutions, including resolution 32/162 of 19 December 1977;

6. Requests the Executive Director of the Centre, in close co-operation with the Executive Secretary of the Economic Commission for Africa, to harmonize their respective work programmes and priorities in the field of human settlements with regard to manpower, training, public participation at the grass-roots level, financing, energy requirements and conservation in human settlemnets, services and assistance in research relating to human settlements.

4/10 Utilization of consultants and experts

The Commission on Human Settlements,

Recalling the medium-term plan for the period 1980-1983, as revised by the General Assembly at its thirty-fifth session, which stressed as a strategy the need for the activities of the United Nations Centre for Human Settlements (Habitat) to concentrate on, inter alia, the organization and technology of the construction and building materials industries, the aim being to ensure, among other things, the more efficient application of technology, the reduction of costs and the expansion of output, e/

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e/ A/33/6/Rev.1, A/35/6.

Realizing that studies and experience in countries could help international agencies in developing a methodology and technical expertise in certain fields, as emphasized in the report of the Ad Hoc Group of Experts on Ways and Means of Establishing or Strengthening Financial Institutions for Human Settlements Financing and Investment, f/

Bearing in mind the recommendation contained in the Executive Director's report on the review of the provision of infrastructure in slums and squatter areas and in rural settlements to the effect that the target population of a project should be involved at all stages of the project from conception through planning and design to implementation and operation, in order to improve a project's chances of success and therefore to make best use of available resources, g/

1. Requests the Executive Director of the United Nations Centre for Human Settlements (Habitat) to intensify his efforts to promote the use of consultants and experts from the developing countries in all aspects of work in the field of human settlements and also to give preference to qualified indigenous personnel in the recruitment of project personnel;

2. Further requests the Executive Director to make a special effort to ensure that due consideration is given to qualified personnel from the developing countries in the compilation and updating of the Centre's roster of consultants and experts.

4/12 Assistance to victims of apartheid and colonialism

The Commission on Human Settlements,

Recalling General Assembly resolution 32/162 of 19 December 1977 on institutional arrangements for international co-operation in the field of human settlements,

Being aware of the deplorable conditions to which the black population is being subjected by the racist apartheid régime in South Africa and in the United Nations territory of Namibia, which the régime in question continues to occupy by force in flagrant violation of United Nations resolutions,

Cognizant of the efforts and contribution being made by members of the Organization of African Unity, particularly the front-line States of southern Africa, and other members of the international community towards the eradication of the evil of apartheid in South Africa and the bringing about of a speedy end to the apartheid régime's continued illegal occupation of Namibia,

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f/ HS/C/4/8, annex, para. 63(a).
g/ HS/C/4/4, para. 53.

Concerned about the increased repression by the Pretoria apartheid régime of the people and their national liberation movements in South Africa and the occupied United Nations territory of Namibia, as well as the apartheid régime's intensified aggression against the front-line States because of their continued support for and commitment to the eradication of colonialism and apartheid,

Viewing with serious concern the destruction of human life and settlements in the front-line States,

1. Commends the Executive Director of the United Nations Centre for Human Settlements (Habitat) for the assistance provided to national liberation movements of South Africa and Namibia in the field of human settlements;

2. Requests the Executive Director:

(a) To intensify human settlements training assistance for the national liberation movements recognized by the Organization of African Unity in order to make victims of apartheid self-reliant and to enable them to obtain the skills necessary for the improvement of their living conditions;

(b) To provide additional assistance to those countries the human settlements of which have been disrupted by the Pretoria racist régime;

(c) To report to the Commission on Human Settlements at its fifth session on the implementation of this resolution;

3. Also commends members of the Organization of African Unity, particularly the front-line States, and all other members of the international community for their unwavering support for the struggle against apartheid and colonialism;

4. Strongly condemns the Pretoria racist régime for its inhuman repression in South Africa and its illegal occupation of Namibia, as well as its acts of aggression against the front-line States.